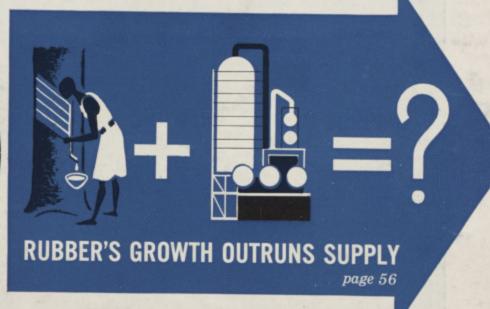
## Nation's Business

A MAGAZINE FOR BUSINESSMEN

**MARCH 1955** 

Do not remove











#### INSIDE RUSSIA

First report of a four-year Air Force Intelligence study

ATTITUDES · POLITICAL PROBABILITIES THREAT OF WAR · INTERNAL TENSIONS

page 25



#### What every salesman should know about showmanship...and telegrams

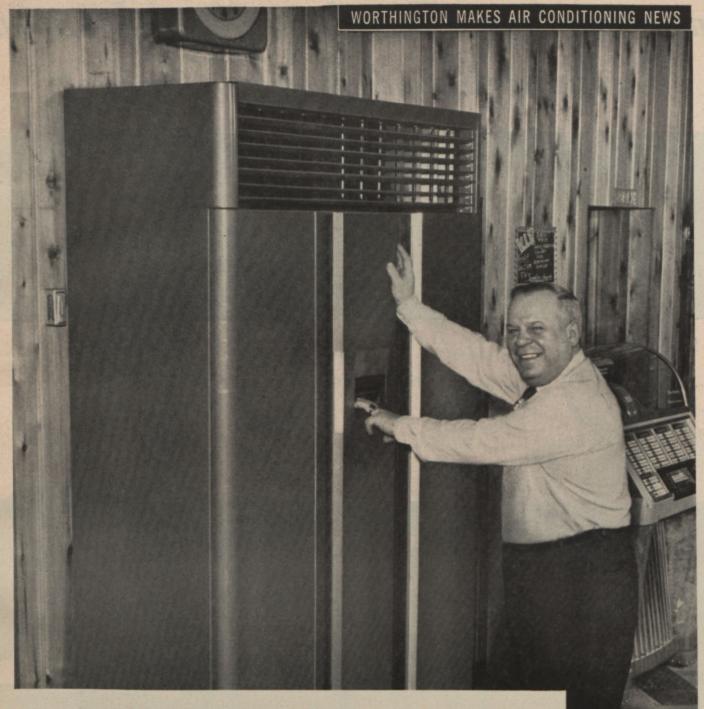
Telegrams dramatize a message—make it stand out like top billing on a theater marquee. And this extra attention value can often mean the difference between success or failure in announcing a new product...a special offer...a trade promotion.

Speed and accuracy also make telegrams ideal for confirming orders... expediting shipments... making appointments... spotlighting important messages of any kind. Inject more showmanship into your salesmanship! Rely on Western Union and say it by telegram! It's fast—easy—and economical.



extra words cost only pennies. More words in night letters, too.

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That's what Herman Schenk, owner of the recently renovated Rainbow Bar in Jackson, Michigan, says about his new Worthington packaged air conditioner.

Keeping the modern Rainbow Bar 10° below outside temperature is no problem for this attractive packaged air conditioning unit with its million-dollar compressor.

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shops all tell the same story. You'll get the same income-boosting results with a dependable, quiet, draft-free Worthington packaged air conditioner.

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A.5.15

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Climate Engineers to Industry, Business and the Home

## Since 1925, the George S. May Company has brought the latest money-making methods to over 36,000 clients in over 3,000 different kinds of business!

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"The control methods installed by your engineers reduced food costs at once to their present level of about 48%."



ERNESTO GIUSTI, Owner Alva Restaurant, Harrisburg, Pa.

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"In spite of rising costs... our net profit still holds at about 5%"

L. S. CHAPPLE, General Manager Kent Dairy, Ltd. Chatham, Ontario, Can.

#### CONTRACTOR

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W. O. CHAVIS, President Chavis Construction Co., Pensacola, Florida



#### AUTOMOBILE DEALER

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COL. WM. M. LIDDON, President Liddon Pontiac, Inc., Nashville, Tenn.

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#### Gentlemen

YES, we are interested in having your representative call on us without obligation.

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## Nation's Business

MARCH 1955 VOL. 43 NO. 3

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N45 1955

## HOW THRIFTY

CAN AUTOMATIC ACCOUNTING BE?

New BURROUGHS SENSIMATIC "50" shows you!



Here at last is a full-size completely automatic Burroughs Sensimatic accounting machine that is within the price reach of *any* business.

With low original cost, the new Burroughs Sensimatic "50" saves you money from the start. It goes right on saving, too, through lower forms costs, higher productive output, speedier operation and fast operator training.

Slip a form into its front-feed carriage and watch the Sensimatic "50" go to work. Talk about automatic! It totals automatically, its carriage moves, opens and closes automatically, it posts dates automatically . . . even switches automatically to red printing for credit postings.

See how your business can speed accounting operations and improve efficiency with the amazing new Burroughs Sensimatic "50." Call your nearest Burroughs branch office for a demonstration, or write Burroughs Corporation, Detroit 32, Mich.

WHEREVER THERE'S BUSINESS THERE'S

Burroughs





TELEPHONING FROM AUTOMOBILES, TRUCKS, BOATS The mobile telephone resembles an ordinary telephone, except that it contains a "push-to-talk" button. Conversations may travel part way by radio and part way by telephone line. Bell telephone companies can supply either complete mobile service, or furnish and maintain equipment for private radio systems.

## More and More Telephones Are Going Traveling These Days

Bell System mobile telephone service – a big time and money saver – is growing rapidly.

This service is now available in 210 areas in the United States, including most cities of over 150,000 and many smaller places.

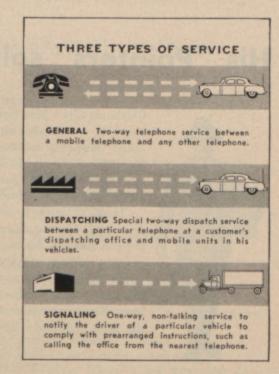
Traveling telephones are necessities to many lines of business having vehicles on the road and to professional people.

Often mobile service is the *only* way to reach quickly a moving car, truck or boat. And from a mobile

telephone you can talk with your own dispatcher's office or with any other telephone anywhere.

Mobile telephones cut labor and vehicle-operating costs for many types of business. Bell System customers receive these advantages without capital outlay, equipment obsolescence or maintenance problems.

This modern convenience is another example of how the telephone is being made useful to more and more people.



Bell Telephone System





W. C. Marshall—conspicuously successful business man. Sportsman and topnotch trainer of highly-bred hunting dogs. Active in civic affairs, too, with Oklahoma City Chamber of Commerce, Lions, and several social clubs.

#### His "Pointers" solve your Figuring Problems!



Oklahoma City's Man from Monroe, Willard C. Marshall, is versatile, expert—at work or play—and "blue chip" all the way! Like every Man from Monroe he tracks down the right answer to your most elusive figuring problems as deftly as his pointers track down quail.

"Marsh's" answers are fast, accurate, and dependable like his marksmanship. To help you in your business, his big guns are Monroe Calculating, Adding, and Accounting Machines.

The Man from Monroe in your locality is uniquely qualified to handle your figuring problems. Because his line of Monroe machines is the most complete...because he's an expert who works with business figures every day . . . his recommendations are based objectively on the requirements of your work, not his machines.

It will pay you to put your figuring problems in the hands of a Man from Monroe. There's always one right in your own vicinity. Call the nearest of Monroe's 275 factory-owned branches which is listed in your classified telephone directory. Monroe Calculating Machine Company, Inc., Orange, New Jersey.



OPERATORS WHO KNOW... PREFER MONROE CALCULATING, ADDING, ACCOUNTING MACHINES

## MANAGEMENT'S Washington letter

FEDERAL CREDIT programs show steady rise.

They help finance housing, vets' benefits, small business, agriculture, foreign aid, others.

The record:

Estimated new commitments for fiscal '56 (opens in July): \$20,475,000,000.

They're up from estimated \$18,850,-000,000 in current year and the actual outlay of \$15,942,000,000 last year.

That's gain of 28 per cent in two years. Doesn't support tight credit talk.

Nor does rundown on total loans outstanding:

'56 estimate, \$67,728,000,000; '55 estimate, \$62,302,000,000; '54 actual, \$55,992,000,000.

Two-year increase: About 22 per cent.

- "RAISE WAGES if you want tariff benefits."

That, in effect, is what some firms want U.S. to tell countries with low pay scales.

Here's the thinking behind it: Low labor costs abroad are cited as chief stumbling block to equal competition in free markets.

If foreign wages go up so does our ability to compete.

Says a spokesman for U.S. glass industry on record against tariff cuts:

"This program wouldn't directly tie trade benefits to wage rates overseas-but it should spur other nations to raise their own living standards and compete on equal footing."

YOU CAN FORGET about tax revisions this year.

The '54 code, approved by 83rd Congress, will stand--at least until tax experts study it fully.

Here's why:

Internal Revenue Service field staff is already confused.

Many regulations dealing with new code aren't out yet -- and those that are can be read in different ways.

Example:

Field agents, figuring depletion allowance on similar mining properties, come up with figures varying as much as 5 per cent.

On a \$1,000,000 depletion allowance, 5 per cent can mean \$50,000 on firm's tax base.

YOUR TAKE-HOME PAY tells you what you have to spend.

Wage earners know that -- and Uncle Sam's gathering new figures to measure

purchasing power.

For first time, Bureau of Labor Statistics supplements gross weekly, hourly earnings, with data on net, after income tax, Social Security deductions.

Here's what preliminary studies show (BLS will publish new data next month):

Over-all gain in spendable income-that's what you have left -- is at record high, 5 per cent above year ago.

The figures:

Single worker's average weekly takehome, \$53.68; worker with three dependents, \$60.04.

New high in purchasing is reached by higher wage, dip in cost of living.

Note: Surveys won't include payments made to retirement funds, union dues, insurance plans, other special deduc-

HERE'S HOW competition benefits consumer:

Home builders step up bidding among themselves for contracts.

Average number of bids per job, nationwide: 7.

In '54: 5.3.

How about prices?

They're 10 per cent below '53 peak. That's despite slight increase to contractors for costs of labor, materials, equipment.

RISE IN U. S. debt limit will be voted.

But there'll be bitter opposition from economy-minded legislators.

They want states to finance more projects, programs on their own, leave Uncle Sam out.

One argument they'll use: State and local debt stands at \$38,000,000,000. That's up \$21,000,-000,000 since '29.

As percentage of Gross National Product, states chopped debt from 22 to 11 per cent in same period.

Meanwhile, federal debt of \$279,000,-000,000 reaches 78 per cent of Gross National Product, as against 16 per cent in '29.

HOT POTATO DEPARTMENT:

Should members of armed services contribute to Social Security fund?

Here's situation now:

Armed services personnel gets basic credit of \$160 a month, makes no contribution to fund.

Some Administration leaders feel they should--as part of legislative package raising service pay.

Veterans' organizations are opposed. Congress will study both views--but it's doubtful that the lawmakers will pick up the hot potato.

▶APPLIANCE MAKERS see '55 as banner year.

Their forecast is based on more new homes, higher incomes, growing population.

That adds up to plenty of room for more sales.

Figures based on 48,500,000 U.S. homes show:

Ninety-five per cent of homes have no air conditioner; 99 per cent no dehumidifier; 96 per cent no dishwasher; 95 per cent no waste disposer; 93 per cent no clothes dryer.

In addition, 85 per cent have no freezer; 90 per cent no roaster, broiler or ironer; 73 per cent no electric range or automatic coffee maker.

Note: Industry also looks for bigger sales in ever growing replacement market.

TAX INCENTIVES for foreign investment aren't likely to be broadened.

Defense, Commerce Departments, off record, worry about U. S. firms putting up plants overseas.

Here's behind-scenes rundown on their

thinking:

Current 14-point differential (14 per cent tax credit) on income earned abroad could slow industry expansion in U. S., stall creation of new jobs.

Example:

Large machinery maker sets up plant in Holland, pays 46 per cent Dutch corporate tax rate, gets 14 per cent That comes to 20 per cent less than

U. S. corporate rate, means company can make and ship goods to U. S. at less cost than it can make them here.

Note: With no control on production or sales, that means higher profits.

Note too: Firms abroad also save on

Note, too: Firms abroad also save on lower wage rates -- at least for a while.

NEW PRODUCTS create new jobs.
So do new uses for old products.
That sums up value of research to over-all economy-as well as to individual company.

Here's how it shows up in what firms

spend for research:

Westinghouse spends 6 per cent of its sales dollar to develop new products.

American Cyanamid spends 5.3 per cent.

At General Electric, new products in past nine years create 45,000 jobs.

Put another way: One out of every five GE employes owes his job to products the company didn't make before 1945.

Note: Candlemakers had record year in '54, despite electric light.

New products, uses, mean new markets,

Look at your own shelves and counters, list what you carry now you didn't have five years ago.

That will show you grass-roots impact of research.

HERE'S BIG REASON defense spending will go up in fiscal '56.

Broad base procurement policy--not likely to be changed--adds to cost. How?

Transportation of raw materials to scattered plants; finished products from them.

Maintaining idle defense capacity (part of stand-by mobilization plan) can cost as much as \$3,600,000,000.

That's on basis of 12,000 small and medium plants kept up and ready to go at \$300,000 each per year.

Defense studies indicate subcontracting adds to job time, poses possibility of obsolescence, snarled supply lines.

Use of currently idle plants also means retooling, added maintenance costs.

### washington letter

In short: Multiple supply sources for defense mean multiple costs.

BATTLE BREWS on old-age assistance. It's between states, federal government.

What's behind it?

Federal agency now provides up to 80 per cent of old-age assistance payments to states, sometimes more.

Administration wants that chopped to flat 50 per cent -- for new cases only.

You can look for fireworks in state legislatures, meeting now.

Result?

Congress will keep hands off proposed federal reduction.

MORE NEW businesses are born despite 28 per cent increase in business deaths.

The figures:

New businesses formed (annual rate) over past year: 9,500 a month.

That compares with 8,600 year ago, means gain of 10.5 per cent.

It's also 36 per cent gain over new business formation in '51.

- NEW HIGHWAY PROGRAM -- if it's approved -- means more than building roads. Here's where a highway construction dollar goes in varied businesses:
- 1. Plant and equipment to build roads, 18 cents.
- 2. Transportation of raw materials, 17 cents.
- 3. Cement, 9 cents; quarrying, 8;
- retail purchases, 7.6.
  4. Iron, steel for construction, 7.6 cents; insurance and taxes, 6.4 cents.
- 5. Wholesale purchases, petroleum products, miscellaneous, 26.5 cents.

Miscellaneous includes mining, power development, manufacturing, agricultural products, rubber, non-ferrous metals.

Less than half of construction dollar ends up in road itself, Bureau of Public Roads points out.

CITIES PUT idle funds to work--and their investments earn big sums. It's growing trend nationwide, reflects effort to ease local tax load, still meet growing obligations. Examples:

Fort Worth, Tex., invests in Treasury discount bills, earns \$104,808 in period when surplus cash in city coffers isn't needed.

Denver earns \$2,166,323 by investing idle funds of \$30,000,000 bond issue for school construction.

Nassau County, N. Y., invests proceeds of \$14,000,000 bond issue not needed immediately to pay for construction in progress.

The result?

Interest and profits on sale of U. S. securities comes to \$435,000.

YOU'LL GET more house for less money this year.

Floor area of single-family home: 1,140 square feet.

That's 5 per cent rise in three

In same period, cost of house is up 3 per cent.

National Association of Real Estate Boards says floor space will go up another 5 per cent this year--and costs are likely to stay level.

Note: Two thirds of new homes have three bedrooms. Less than half had that many five years ago.

BRIEFS: Americans are expected to eat 8,500,000,000 hot dogs this year-more than one dog per person per week. . . . Rising birth rate pushes toy sales over \$1,000,000,000 for first time; toymakers see 10 per cent gain in '55. . . . Patent Office forecasts record 16,000 trade-marks this year; total on books now: 544,992. . . . Marketing cooperatives do \$15,000,000,000 annual business; with 12,000,000 shareholders they're entering insurance, credit fields, too. . . . Hardware retailers expect '55 to be a \$3,000,000,000 sales year, 10 per cent above '54; they're cheered by huge volume of commercial building, spread of budget selling for do-it-yourself market. . . . Over-thecounter life insurance in force at mutual savings banks totals \$800,000,-000, includes 670,000 policies averaging \$1,597. . . . Americans receive more than \$11,000,000,000 yearly from insurance, retirement funds, workmen's compensation, other protection programs; half comes from life insurance.

#### new!

## Photorapid "COMPAK"



#### Now, a compact one-piece photo-copying machine with the versatility of a flat bed printer!

In seconds it copies anything that you can hold against the glass. Even books, or other material that cannot be passed through the slot usually found in photocopiers.

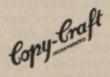
Easier to clean—and more economical. The developing tray lifts out for simplified cleaning and closes tight when not in use, thus extending the life of the solution.

Protects from corrosion because of its nonmetallic tank.

Also makes perfect transparencies for use as masters with diazo or blueprints or for burning in positive offset plates.

Compact-Portable. Two sizes, 81/2" x 14" and 14" x 17".

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#### Letters TO THE EDITOR

#### Help for a common problem

I have been very much interested in the mutual problems of business and education, particularly in Kentucky, and specifically as these problems were related to the small independent college. We formed a typical organization under the name of the Kentucky Independent College Foundation to solicit for eight of these colleges in this area.

I am hopeful that many Kentuckians will read February's "The State of the Nation." I am confident that after they have read your statement of the problem and the mutual interests and responsibilities of business and education, our undertaking will be more successful in all aspects. May I thank you for the aid your thoughts will afford our cause.

THOS. A. BALLANTINE 832 W. Liberty St. Louisville, Ky.

#### **Duffus for dessert**

This, of course, is only one man's opinion—but it seems to me that you have done your readers a disservice in relegating R. L. Duffus' column "By My Way" to the tail end of your publication, and cutting his material as well.

If I am not mistaken, I used to read R. L. Duffus when he wrote under a by-line in the New York Times—and that's a long time ago. I've enjoyed him for years as one of the "leavening" features in NATION'S BUSINESS. Perhaps the new editorial policy considered this angle—a little dessert after the heavier fare. However, I consider Duffus' column as an appetizer, or the cocktail, instead.

GERARD TONACHEL, Vice Pres. Standard & Poor's Corp. New York, N.Y.

[R. L. Duffus, presently a member of the editorial board of the New York Times, was tail-ending only in January. He was back up front in February.]

#### Market keeps expanding

I have just read NATION'S BUSINESS for February. It is an excellent issue. The article headlined "44 Million More Americans in 1975" is simply terrific. May I have your permission to use some of the copy and the charts?

R. E. WAKELEY
The National Research Bureau, Inc.
Chicago, Ill.

#### This is how it was

The article on Saratoga chips in the February issue is interesting but inaccurate.

My mother, one of the Curtis family of Saratoga Springs, N.Y., often told

me of many pleasant affairs in the famous spa during the decade before the Civil War when wealthy southerners and their families with retinues of servants and stables of blooded horses were the center of social activities. One of the favorite drives was to Saratoga Lake where there were several dining places, the most noted of which was Moon's Lake House on the west side of the lake near the north end.

Mrs. Moon was noted for her cooking and unusual dishes and she originated the chips. The Moon farm supplied much of the produce used and the somewhat sandy soil of the area grew large, mealy potatoes. Plenty of sweet lard came from the well fed hogs and a large, very cold spring filled a huge spring house common to those days in the country.

Mrs. Moon and her colored help selected the finest potatoes and they were sliced very thin before being placed in shallow pans which were then immersed in the cold spring water and allowed to stand for some time to soak out some of the starch.

Then the slices were spread on drycloths and patted until all the moisture was removed and then cooked in deep, very hot lard.

George Crum also had a resort at the lake but he did not originate the

Saratoga chips.

I remember almost 70 years ago as a child riding to and from the lake on Mr. Slora's tally-ho, and the passengers always bought little bags of chips to munch on the ride to town. But I do not remember having chips for many years after that anywhere else.

HENRY CURTIS MORRIS, Pres., Aurora Hills, Inc., Arlington, Va.

#### Supervisors guess wrong

Your article in the December issue on "Job Enlargement" is a most interesting human relations article. I have taken the liberty of having your ten points mimeographed and have given them to a number of supervisory groups just to see what the reaction would be.

True to form, they put wages and security first and second and so on down the line. However, when I indicated the variance between their results and the employe results in your article, there was much belittling and general disagreement.

Believe me, I don't have to be sold on this for I know it to be true, and your little paragraph "a recent survey suggests that management still can't quite believe the workers' own evaluation of the factors which make them tick. . . ." is most assuredly so.

If our management organizations would just stop rating everything in

terms of money and begin to believe what has been said over and over again, so much difficulty and strife could be eliminated.

ROBERT J. CARROLL
R. J. Carroll Associates
Media, Pa.

#### Masterpiece . . .

Your January 1955 issue "Midterm Report" is a masterpiece. An education is at hand for anyone who will read the statements of the present Cabinet members, and the independent analyses which accompany each statement.

WILLIAM H. SYKES Chamber of Commerce Albert Lea, Minn.

#### ... with qualifications

I read your article in the January issue about the Post Office Department and its operation and I find that I must agree with much that you say about politics.

However, have you ever considered the results of the alternative? If the so-called merit system is carried out right through to the top, you then have firmly entrenched civil servants who may well have little or no regard for the public interest and who would have no incentive whatsoever to promote efficiency.

You have failed to mention in your article the main reason for the slow, dragging-of-the-heels enforcement of any "streamlining" of operations, or efficient systems. It is the employes themselves.

Ask any postmaster and he can tell you the terrible trouble he has had in the past few years trying to change old ways.

Although I in no way try to condone the bad abuses that you point out with the political system, I do maintain that you have a moderate amount of control over the department, and after all, the improvements and innovations that you have pointed out have been under what I would call an enlightened political system.

DONALD THOMPSON Merrimade, Inc. Lawrence, Mass.

#### Salute to courage

I have just finished reading your article in the January issue (State of the Nation, by Felix Morley). Congratulations.

I have been waiting for someone to point out some of the fallacies in our position with reference to the fliers in prison in Peiping. You have explored and exposed in fine style the similarities between what the Chinese have now done and what we did in Nuremberg.

The Chinese have been acting rough with prisoners for thousands of years, including their own people. When foreigners fight the Chinese they cannot be surprised at the tactics used by the Chinese in light of the history of that land. Time to do some heavy thinking about what is going to happen to our

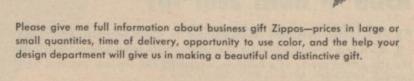
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ZIPPO MANUFACTURING COMPANY, BRADFORD, PA. In Canada: Zippo Manufacturing Co., Canada Ltd., Niagara Falls, Ont.

#### American Credit Insurance

The Case of the Timely Advice

THIS is an illustration of the manner in which American Credit can often help initiate action for the benefit of its policyholders. Whatever the size or the nature of a business, situations like the one outlined here can arise.

In the present case, the policyholder had previously obtained an increase in the credit limit on a single customer, up to a coverage of 150 thousand dollars, with a ten percent deductible. Some time later, the policyholder's Credit Department contacted us through routine channels about a proposed extension of time on the account. The total outstanding at that time amounted to slightly more than 120 thousand dollars.

Before deciding what should be done, we suggested that an investigation be undertaken through one of our own branch offices. With the facts in the case fully established, the policyholder agreed with us that an extension was actually inadvisable, and authorized us to proceed with efforts to collect the amount past due. No payments were forthcoming, and in the meantime, other creditors had come forward. Preparations were made for immediate suit.

As a result of our activities and the activities of other creditors, the debtor made an effort to find a purchaser for his stock, in order to ward off complete disaster. Such a purchaser was eventually found, and negotiations were begun for settlement of the claim. In the meanwhile, we paid our policyholder slightly over 100 thousand dollars, thus forestalling any possible curtailment of operations due to shortage of fluid capital.

Eventually, with the concurrence of our policyholder, a settlement was made with the purchaser of the stock for payment of the greater part of the original debtor's account. Thus, through the timely advice of American Credit. a happy ending was written to a story that might otherwise have terminated in misfortune.

Whether you are doing business with a few large accounts or a great many small ones, you too will find new assurance in the knowledge that your accounts receivable are protected by insurance to at least the same extent as your buildings, your machines, and your shipments. For your copy of a new booklet: "Credit Insurance, Its History and Functions," write Department 41, First National Bank Building, Baltimore 2, Maryland.

#### American Credit Indemnity Company

of New York

young people is before they are sent into that land and not after.

Accordingly your thought-provoking essay in NATION'S BUSINESS sheds a bright light on the otherwise dark picture. For your insight and courage I salute you.

HOWARD BUFFETT Omaha, Nebraska

#### Helps foreign road boom

... Contributions (are) being made by private business interests to road and highway transportation development outside the United States ... primarily through The International Road Federation and its ever increasing circle of national, regional and local good roads associations and committees active in some 60 countries.

Founded by business firms in 1948, the federation is very successfully carrying out a program outside the United States to create public demand and support for good roads, to foster sound highway administration, financing, planning, construction, maintenance and legislation, to aid in the training of highway and traffic engineers, and to help develop skilled workmen for the operation and maintenance of road-building machinery and equipment.

The federation is encouraging a greater international interchange of engineering and technical data; it is represented at all international meetings concerned with highways and highway transportation; it is a highway transportation consultant to the United Nations and it is authorized cooperating status by the Organization of American States and the Organization for European Economic Cooperation.

Leaders of the member good roads associations of the federation are the foremost businessmen of the countries in which they live. They are contributing not only to the development of local and national highways but to international routes.

JOHN P. PLUM International Road Federation Washington, D.C.

#### Questions farm costs

As a farmer who reads your publication, I'd like very much to know your reasons for saying on page 40 of the December issue that, "If operating costs drop a little (as they have during the past two years) . . ." It's certainly contrary to everything we know or read elsewhere.

James F. Corson Jacksonville, Ore.

#### Prisons called easy

Having just read your article "U. S. Prisons," I am not impressed one bit. Quite the contrary, having visited both state and local penal institutions, I think it would be a snap to be placed in such a place. If these places were made to be "hell holes," maybe they would not be colleges for criminals.

JAMES E. ULLMER Dayton, Ohio

## 15 day-in, day-out uses in your office for Verifax Copying



Sensational Kodak Verifax Printer makes 3 copies in 1 minute for less than 4¢ each It costs only \$240!

> Here's the completely different office-copying machine that has quickly paid for itself in thousands of offices-often in less than a month. You, too, will find it a sensational time-and-money saver in such everyday uses as these:

- I. When you need a copy of a document in a hurry.
- 2. When a letter must be referred to several people.
  - 3. When you can answer a letter with a notation in the margin.
- 4. When a memo or directive calls for immediate action by several people.
- 5. When you need extra copies of an invoice or other incoming record.
  - 6. When you do not wish to release document from your file.
  - 7. When you cannot get enough readable carbons in one typing.
  - 8. When you forget to ask for additional
- 9. When you need more copies than you anticipated.
- 10. When copies of original work sheets in pen or pencil are suitable for distribution.
  - 11. When you need copies of a sketch, diagram, etc.
- 12. When you need copies of magazine or news items.
- 13. When an original document is of a highly confidential nature.
- 14. When a central or outside copying service cannot give you copies fast enough.
  - 15. When you want to end costly retyping, proofreading on any job.

demonstration in your office. See your own luplicated by your own staff. No obligation.

Completely different-you get 3 or more photo-exact copies from just 1 sheet of sensitized paper; you expose original only once, make your copies in full room light. This 81/2x11 model printer (above) costs only \$240.

#### New! Legal Model Now Available

This new Verifax Printer is especially designed for offices handling larger-size documents, including those 8½ x 14 inches in size. Makes 3 copies in 1 minute for less than 5¢ each. Many extra features in this new, wider-scope machine, which is surprisingly low priced at \$395.00

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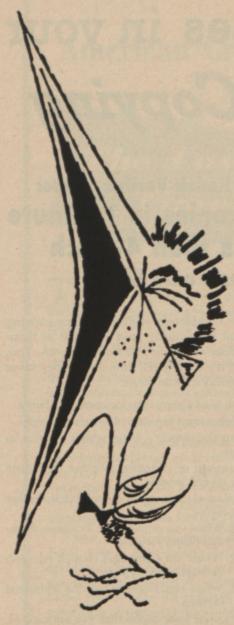
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#### RARE BIRDS WE HAVE KNOWN



#### THE GOLDEN-THROATED SCREAMER

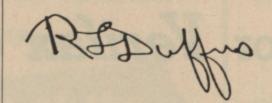
At one time a common sight around business offices, this bird is becoming very rare indeed. Most observers attribute this to the growing use of M & V Carbon Papers—the high-quality carbon papers that make all copies darned near as clean and sharp as originals. Stands to reason, say these experts, that when hard-to-read carbons are eliminated, Screamers become extinct.

If any of these rare birds are still around your office, ask your office supplier for M & V. And for a free print of the Screamer (suitable for framing), plus samples of M & V Carbon Papers, write to Mittag & Volger, Inc., Park Ridge, N. J.



CARBON PAPER AND INKED RIBBONS

#### BY MY WAY





#### -70 is cold enough

THE LOWEST recorded temperature I can find in mainland United States is 45 below zero at Bismarck, N. D. In Alaska temperatures of 70 below zero have been reported, and they do not call 45 below cold. The world record is held by the town of Verkhoyansk, Siberia, where the temperature once went to 90 below. But I would prefer to be sweltering in Bismarck at 45 below, or drinking a cool soda in Fairbanks at 70 below to the comforts of Verkhovansk at 90 below. The communists can have that temperature if they like-I don't want it.

#### Stocks, as of 1980

I DON'T know what the stock market will be doing when these words are in print. I do know it won't be doing anything to me—all the stock I own is completely paid for. And I figure that any stock that is honestly issued will be worth more 25 years from now than it is today. My personal problem, which I assume I share with many others, is how to live those 25 years.

#### Good old five p.m.

IT IS FUN to be scared if one can be un-scared right away. In our suburban town we have a siren which sounds when there is a fire, and would sound if an armed enemy appeared in the sky. It also sounds once a day, at five p. m. It is always a pleasure to look at one's watch when this dismal mooing occurs and to find that it isn't a fire or the end of the world. I am getting quite fond of five p. m.

#### The busy signal

THIS NATION has, I understand, about one telephone for every three inhabitants and each inhabitant telephones about one and one-fourth times a day. I encounter so many busy signals I would have thought

it was more. However, we must allow for that type of inhabitant—often teen-age, but not always—who knows how to start telephoning but not how to stop.

#### An umpire who survived

THE DEATH of Bill Dineen, who played brilliant baseball for 14 years, then called the strikes for 28



years more, disproved one ancient tradition. Dineen lived 18 years after his retirement, and reached the grand old age of 78.

This goes to show that though the fans may yell, "Kill the umpire," they don't do it.

#### Traffic jams: the bright side

AS I SAT meditating in the center of a city street full of cars I had a happy thought, which I hereby pass along: When the automobile becomes so numerous that it can't move at all it is at least safe; a person gets hurt only when the car is moving.

#### The feminine foot

THE PRESIDENT of the Michigan Shoe Retailers Association, Mr. Morton Hack, says that women's feet are getting bigger: 30 years ago the average was 6B and now it is 7½B. As a male, old enough to be, in part, judicial in these matters, I don't care. Women are taller than they used to be. They get around more. They are, on the average (and I must except some lovely girls I used to know, long ago, one of whom I was able to marry—though I don't know what she saw in me), more beautiful. If their feet are larger, that is all for the best—

how can we have too much of a good thing?

#### Any rags, any bottles, etc.

I LIKE the plain old words better than the new and fancy ones. I have seen a lot of "Antique Shoppes" but it did me good to come on a store the other day which calls itself, frankly, a "Junk Shop." This store



also buys rags, and when I have some to sell I am going to take them there.

#### When March meant a lot

WHEN I WAS in high school I worked spare time in a country newspaper office in Vermont. It was my duty, in winter time, to rise at 5:30, tend five coal stoves and sweep out the office. When the weather moderated there were no stoves to tend and I slept half an hour later. So the month of March was not just another four and a fraction weeks: It was the faint, beginning breath of spring; it was not only romance but half an hour's extra sleep. I wish March meant as much to me now. But I do not wish to rise at 5:30. Not at 5:30 a.m., anyhow. Five-thirty p.m. isn't bad.

#### The impulse to travel

MY WIFE and I are down with the old spring fit, as I believe Kipling called it, again. We generally begin to feel the symptoms just after the old fall fit has worn off. and these consist of wanting to go somewhere. The details of our next trip are still top secret, and all I can say is that they interest us, whether or not they interest anybody else. I wonder and wonder about the impulse so many of us have to go roaming about the earth. I believe it was Thoreau who said that a man could find everything he needed to know in his own backyard. But even Thoreau went for a voyage on the Concord and Merrimac Rivers and on a trip to Quebec, and if I am not mistaken he once journeyed to Staten Island. I don't know that my wife and I will be more contented where we are going than where we are, but I am sure that if we are discontented it will be in a different way. And it's change we want, I do believe.



...then watch what happens here

Actual items you enter on keyboard appear in this Check Window before they are printed or added. For the first time on an American 10-key machine you see what you're adding -so you can work quickly and accurately. Note, too, how Clear Signal prints automatically on tape with the first item following a total...also how True Credit Balance prints without extra motor operations or pre-setting!

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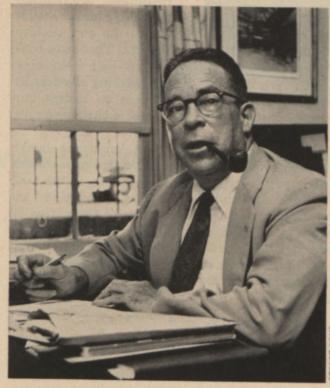
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## Trends of Nation's Business



#### GEORGE

#### THE STATE OF THE NATION BY FELIX MORLEY

URING the hot debate over U.S. membership in the old League of Nations, back in 1920, a principal opposition charge was that the League would somehow or other snare this country into another war. It proved a persuasive argument, and we never became a member.

Just ten years ago, however, we not merely joined but also enthusiastically promoted the world organization known as the United Nations, which was the lineal successor of the old League, operates in much the same manner and has practically identical objectives. Today the United Nations, in its turn, is getting a lot of fiery American criticism.

But the character of present criticism, curiously enough, is exactly the opposite of that which broke the hopes of President Wilson. The U.N. is not currently attacked for dragging us toward war, but rather for getting us out. On every hand one hears that, except for U.N. restraints, we would have cleaned up Red China at the time of the Korean "police action." The Formosa problem, it is asserted, became acute because we let our hands be tied by others in Korea.

. . . .

Hypothetical argument about what might have been is at best an unsatisfactory pastime. But the factual evidence that American public opinion has somehow boxed the compass in regard to organized international cooperation is another matter. A generation ago our people told the world they were too peace-loving to surrender national sovereignty. Now other countries are getting the impression that we are too belligerent to accept restrictions. Is this another illustration of what so many foreigners call our volatile national character? Or is the shift explained by the menace of the communist threat, for which there was no parallel when Woodrow Wilson was stumping for the League?

Neither explanation is convincing. If we were really afraid of the communist axis, rather than intensely irritated by its ceaseless goading, we would do nothing to alienate our many actual and potential allies in U.N. And if the current criticism of U.N. were merely a reflex of national instability, we would logically expect more chafing at other restraints on headstrong national action. Our own Constitution, for instance, certainly makes it difficult for the Executive to exercise dictatorial powers. Yet it was the deference shown by President Eisenhower to the Congress that most strongly commended his decision to defend Formosa at any price.

There is really no inconsistency between the opposed condemnations of the old League and the new U.N. Many Americans feared that the League of Nations would involve us in "foreign entanglements" and thereby infringe the sovereignty of the United States. Then, under the plea of emergency, it became national policy to make official commitments of the most far-reaching character all over the globe. Still the old-

#### Trends

fashioned conviction that this country should control its own destiny persists. That same consistent belief explains

both the earlier opposition to making alliances at all, and the current opposition to having our actions controlled by the alliances that have now been made.

And it is not surprising that Americans should be peculiarly sensitive about any trespass on the sovereignty of the United States. For, in the case of our country and of our country almost alone, an infringement on the sovereignty of the nation is actually an infringement on the rights of the citizen. This arises from the fact that you cannot put your finger on any office, or any organ of American government, and say: There is the seat of sovereign power.

. . .

In Russia, of course, the identification is simple. As Article 67 of the Soviet Constitution frankly states: "Decisions and orders of the Council of Ministers of the USSR are binding throughout the territory of the USSR." This council may operate as a personal dictatorship, as under Stalin's chairmanship. Or it may sit as a directorate, as it did under Malenkov. In either case there is no doubt that absolute, unqualified sovereignty vests in the hands of the little group in the Kremlin.

And this is not itself a characteristic of tyranny, for in Great Britain sovereignty is just as definitely concentrated as in Russia. Although the Queen is nominally sovereign in Britain, the absolute power actually vests in the hands of the Prime Minister for as long as he is upheld by the majority in the House of Commons. In Russia and Great Britain alike national sovereignty can readily be located in identifiable hands.

The constitutional difference, of course, is that the British, through representative processes, can at any time change their premier, whereas the Russian people have no say whatsoever as to who shall govern them.

Our American system, however, is as different from the British on the one hand as from the Russian on the other. Because he must deal with a potentially hostile Congress, able at any time to curtail his funds, neither the President of the United States, nor the Secretary of State as his deputy in the field of foreign policy, possesses full sovereignty. Neither does the Congress, the enactments of which are not only subject to presidential veto but also to outright cancellation by the Supreme Court. And the Court, in turn, is obviously not sovereign because it has no power to initiate action.

Although this calculated dispersion of sovereignty is too familiar to seem strange to us, it is actually unique in history. And the decision to "put the power in the people," to quote the phrase first used by William Penn, explains why Americans are so sensitive about agreements which bind them without their affirmative consent. Since legal sovereignty in this country vests in the people, a trespass on that sovereignty is, more so than in Britain or almost any other country, a trespass on the individual citizen.

. . .

In the early period of our national history this system of government by popular agreement worked beautifully. Matters of local concern were left to largely autonomous local governments, which handled them as the community deemed appropriate.

But the dispersion of sovereignty is obviously an illogical system for undertakings that require centralized direction. As soon as any program becomes nationwide in its scope there is a tendency to ignore that section of the Constitution which says: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people."

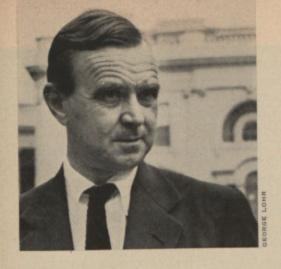
And it is particularly in the field of international relations, where our policies must necessarily be adapted to those of others—whether friends or enemies—that the Executive is likely to be hampered by constitutional restraints. As a result, American foreign policy tends to be more uncertain than that of a nation where sovereignty is concentrated. For in practice this means that the foreign minister can act more freely on his judgment, with less deference to public opinion.

There is clearly a growing conflict between our institutions, all of which demand decentralized power, and our national policies, so many of which necessitate centralized power. And much that at first glance seems erratic in our national behavior can be traced to the fact that this federal republic is attempting tasks which its institutions were designed to prevent rather than to assist.

It is said of the bumblebee that theoretically he cannot possibly fly. Yet actually he does. In the same way the practical American genius may for a long time finesse the contradiction between the theory of our government and its present practice. But the conflict is there.

The dilemma roots in the fact that liberty and security tend to be incompatible. The most secure animals—though not the happiest—are those confined in zoos.

A primary objective of our Constitution is to safeguard individual liberty. A primary objective of our foreign policy is to safeguard national security. To attain both ends it must be constantly realized that reconciliation of the two is difficult.





#### **WASHINGTON MOOD**

BY EDWARD T. FOLLIARD

A LTHOUGH the profession of arms brought him fame and landed him in the White House, President Eisenhower abhors war. He is proud of having been a soldier for 40 years; proud, too, that his son is a soldier. But he loathes the militarist; that is, one who exalts war or thinks of war in romantic terms.

This fact about the President's temperament, it would seem, needs emphasizing at a time when ominous clouds hang over the Far East and people again are asking: "Do you think there will be war?"

. . .

Having seen a good deal of President Eisenhower as a war correspondent and as a political reporter in the past 11 years, I have been impressed by what would almost seem like an eccentricity in his make-up. He carries himself like a soldier, has many of the simple virtues of a soldier, but he doesn't talk as you would expect a soldier to talk.

If he talks about war at all, it is in terms of horror and not glory.

He has in his oval office in the White House but one picture of a professional soldier, a portrait of Gen. Robert E. Lee. He speaks in the most glowing terms about Lee. But what he most admires about the Virginian, you find out, is not his skill as a tactician and strategist, but his "great and noble character," his idealism and his purity of soul.

He brought Lee into an off-the-cuff talk he was making at a December news conference. Some of his own Republicans were critical of him at the time for not being tougher with the Chinese Reds, specifically for backing away from a blockade of the Chinese mainland. He said he thought a blockade would be an act of war, and he wanted no part of it.

He quoted Lee as saying: "It is well that war is so horrible; if it were not so, we would grow too fond of it."

He thus showed that he was aware that war does have a sort of grim attraction for some people, much as it may repel others.

"Now," General Eisenhower said to the re-

porters, "let us think of war for a second. When this nation goes to war, the (people) close ranks behind the leader. There is a real fervor that you can feel everywhere. There is practically an exhilaration about the affair."

But, he emphasized, there was another side to it, and he went on to talk about it with moving earnestness.

"I have had the experience," he said, "of writing letters of condolence by the thousands to bereaved mothers, wives and others who have lost their dear ones on the battlefield. Now that is a very sobering experience. If we are ever going to take such a fateful decision as leads us one step to war, let us not do it in anger and resentment.

"Let us recognize that we owe it to ourselves and to the world to explore every possible peaceable means of settling differences before we even think of such a thing as war. And the hard way is to have the courage of patience. . . ."

This sentiment was widely applauded, but there were dissenters. Some Republicans in Congress felt that the United States already had shown too much patience with the Chinese Reds, patience that came close to smacking of appearement. They thought it was time for the President to get tough.

. . .

The whole atmosphere of Washington has changed since then. With the almost unanimous backing of Congress, General Eisenhower has made his boldest move since entering the White House, and has in effect told Red China:

"Get this straight: We are going to safeguard Formosa and the nearby Pescadores Islands. They are a vital part of our Pacific defense line. In safeguarding them, we will not necessarily wait until you try to pounce on them. It is just possible that we will hit you first; that is up to you. If we see you massing planes, troops and ships for what is clearly recognizable as an attempt to invade Formosa, your own mainland may feel the might of our Navy and Air Force before the attempt can begin.

"We don't want war with you. On the contrary, we are making our position clear now in an honest

#### Trends

and hopeful attempt to avert war. We trust you will have the good common sense to fall in line with the efforts that are

being made to arrange a cease-fire between your country and Chiang Kai-shek's Nationalists."

What caused this seeming change of tactics in dealing with Red China?

President Eisenhower says it was this: to guard against the danger of a miscalculation by the communists in Peiping. He believes, along with Secretary of State John Foster Dulles, that it was a miscalculation that brought on the war in Korea in 1950; that the Reds in North Korea launched their attack because they were convinced that the United States would not intervene.

. . .

Here is how Secretary Dulles has dealt with this theme:

"Big wars usually come about by mistake, not by design. It is probable that the Korean war would not have occurred if the aggressor had known what the United States would do.

"The lesson is this: If events are likely which will in fact lead us to fight, let us make clear our intention in advance; then we shall probably not have to fight."

The importance of Formosa in a strategic sense was emphasized in World War II when Tojo used it as a platform from which to launch the Japanese attack on the Philippines. Recently American jet planes took off from the Philippines and Okinawa and reached Formosa in less than an hour.

Located about 100 miles from the Chinese mainland, Formosa has an area of about 13,800 square miles and a population close to 8,000,000. It was for a long time a possession of China. Then, in 1895, China ceded it to Japan, after the Sino-Japanese war of that period.

In 1943, at a meeting in Cairo, President Roosevelt, Prime Minister Churchill and Chiang Kaishek issued this declaration:

"All territories Japan has stolen from China, such as Formosa and the Pescadores, shall be restored to the Republic of China."

When the Reds overran China proper in 1949, Chiang Kai-shek and his forces moved to Formosa, and the island has been the Chinese Nationalist stronghold since.

In the Japanese peace treaty of 1951, Japan renounced all claim to Formosa. However, nothing was said in the treaty as to who would get the island. That question remains up in the air, a circumstance that figures prominently in the current Far East fireworks.

Red China argues in the most violent terms that Formosa is hers, that Chiang Kai-shek is a traitor with no valid claim to it, and it tells the world almost daily over the Peiping radio that it is determined that the island will be "liberated."

The Chinese communists are not without sympathizers in the free world. In a speech in the House of Commons last summer, Clement Attlee, leader of Britain's Labor Party, used Formosa in a parallel that infuriated official Washington. Attlee went back 178 years and said:

"Supposing when the American Revolution happened, General Burgoyne instead of surrendering at Saratoga had been thrust into Long Island. Suppose also some king in Europe who objected strongly to republicanism had supplied him with arms and a fleet and had prevented the Americans getting at him. I do not think that Washington and (his) friends would have regarded that as a very friendly act.

"It may be said that this is far fetched, but one must try and look at it from the other point of view. I suggest, therefore, that the two things that stand in the way of a settlement are precisely these—Formosa and the seat at the U.N."

The United States sees no merit in that Attlee parallel, and it certainly is in no mood right now to give Red China either Formosa or a seat in the U.N.

Looking at it from a cold-blooded military standpoint, Red China would seem to have no chance to capture Formosa now or in the near future. True, her army is sizable, something like 2,500,000 men, as against an estimated 300,000 effectives that Chiang Kai-shek has on Formosa. But the big question is: How does Red China get her invading army across 100 miles of water to Formosa's beaches in the face of America's sea and air power in the region?

Officials here who are in close touch with the situation give it as their best judgment that Red China will refuse to enter into any cease-fire arrangement, will continue to call for the "liberation" of Formosa, will engage in skirmishes, but will stop short of touching off a major war in the Far East.

These officials, however, are not dogmatic in their views. They acknowledge that their brand of logic may not be the same brand as they followed in Peiping and Moscow.

The Chief Executive was much heartened by the overwhelming vote in the Senate and House for his readiness-to-fight policy. He knows now that the Democrats are just as thoroughly behind him on this as the Republicans, no matter how much excitement they may kick up over Dixon-Yates, the cut in the Army and some other issues.

The feeling among the Democrats where the Far East is concerned was best summed up by their elder statesman out in Independence, Mo.

"The man in the White House," said Mr. Truman, "has my sincere sympathy."



#### How much initiative should your secretary take?

IF YOUR gal Friday has been with you for any length of time, she probably does plenty right now to help you see over that mountain of work on your desk.

But, being human, you wouldn't object if she took a little more off your shoulders. Especially, if what she decided to do might help you avoid a risk that could put you out of business.

What could that be? Something very simple, really. Just a check to see if your accounts receivable, tax, inventory and other records are in a "safe" safe-not a potential "incinerator." This is important. For an "incinerator" safe would cremate your records if a fire ever started!

A fireproof building couldn't prevent it, either. For these buildings just wall-in fires, make them hotter. And you'd find you couldn't collect fully on your fire insurance, unless you could supply "proofof-loss within 60 days"-which is tough to do without records!

Don't risk losing everything! 43 out of 100 firms that lose their records in a fire never reopen. If your safe is old, or

doesn't bear the Underwriters' label, or carries a lower rating than your fire risk calls for-replace it! Get the safe that has never failed-the famous Mosler "A" Label Record Safe. Look below. See why it's the world's best protection. Then look up Mosler in the phone book, or mail coupon for free FIRE "DANGERater."

P. S. If your secretary does take the initiative in this matter soon, let her go ahead. She's trying to win a trip to Paris in Mosler's new LIFE - advertised contest for secretaries. Trying to help you, too!





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## WHAT RUSSIA WILL DO NEXT

Kremlin wants to avoid all-out war, Air Force Russian study reveals. The chances of revolt in Soviet Union held slim, although many Russians are fed up with terror tactics of Red regime

By PAUL HENCKE



MALENKOV's resignation as Russia's premier and his replacement by Bulganin will mean little change in Russia's over-all strategy.

This is the opinion to be drawn from a four year study of communist power and weaknesses which the Russian Research Center at Harvard University has just completed for the United States Air Force.

An exclusive interview starting on page 26 summarizes the most important findings of the study. Some of the conclusions are heartening to the cause of freedom. Others seem to justify the darkest of doubts about the future.

Air Force evaluators describe the Harvard material as "the most thoroughgoing and extensive examination of national life in the Soviet Union ever undertaken by western scholars."

Their enthusiasm is warranted. The study—begun in 1950 and completed last Nov. 30—provides our government with an X-ray picture of the many forces at work in Soviet society: of a regime shaken by ideological controversies and conflicting personal ambitions yet unified by communism's historic drive toward world conquest; of a people weary of the burdens thrust on them by totalitarian masters yet

mesmerized by communism's promise of a better life; of an economy capable of equipping a mammoth, modern war machine yet pathetically inept in its efforts to supply consumer goods to the citizens of the Soviet.

The basic contents of the study are the accounts which Russian people themselves have given of their day-to-day life. Harvard's research teams conducted hundreds of oral interviews with Russian emigres in Europe and America during 1950 and 1951. This information was augmented by thousands of questionaires filled out by Soviet escapees, special reports written by former factory managers, Communist Party officials and others, and papers prepared expressly for the Project by American experts on the Soviet Union.

In its unprocessed form the Harvard data exceeded 33,000 pages. Specialists working under the supervision of Dr. Clyde Kluckhohn, director of the project for Harvard, integrated this information, and funneled the end-product into the Officer Education Research Laboratory at Maxwell Air Force Base, Montgomery, Ala.

There two Air Force intelligence specialists, Dr.

Herman J. Sander and Edmund O. Barker have been working the data into final shape. Their work will not be completed until some time this summer.

The study covered many aspects of Soviet lifereaction to German occupation, Soviet policy toward national minorities, the arrest system, attitude of the man-in-the-street toward the regime, the role of the

factory manager, and so on.

The final report was written by Dr. Kluckhohn in cooperation with two staff assistants, Drs. Alex Inkeles and Raymond Bauer. It bears the wordy title, "Strategic Psychological Strengths and Vulnerabilities of the Soviet Social System," but amounts, in fact, to a simple summing-up of all that was learned during the four years of exhaustive research. It is in this volume, too, that Harvard's Russian experts predict what Russia's next moves will be.

The thoroughness of the scholarship which went into this study is illustrated by the special competencies of Drs. Kluckhohn, Inkeles and Bauer. They are, in the order named, an anthropologist, sociologist, and social psychologist. Also included on the project research staff were historians, economists, political scientists, clinical psychologists, students of Russian literature and other recognized experts on the USSR.

Sixty of the former Soviet citizens interviewed were given clinical psychology tests designed to reveal to the researchers the innermost workings of the Soviet

Special care was taken in all phases of the research

to insure against biased opinion.

The interviewees were both men and women, but men predominated. Most were in their middle years. Many of them were carried out of Russia as impressed laborers by the retreating Nazis during World War II. Others left Russia in the immediate postwar era.

Some got out as late as 1950.

No significant differences were noted in the attitudes expressed by those Russians brought out of their homeland by the German Army and those who left later. For this reason the research directors believe that they obtained a portrait of Russian society as it is today, as well as ten or 15 years ago.

The average Soviet citizen, in other words, has been much the same person since about 1940 and probably won't change much in his basic attitudes

in the foreseeable future.

The interviewees made up a cross-section of work groups-housewives, students, Red Army and Communist Party officials, farmers, doctors, lawyers-and included members of many disparate national groups -Armenians, Byelorussians, Georgians, Great Russians, Ukrainians, and so forth. Many had been active, loyal supporters of the regime right up to the time they left Russia.

Few could be labeled as "social failures" and their

testimony challenged on that basis.

Certain themes recurred often during the four years of fact-finding: agriculture is a very weak cog in the Soviet machine (Harvard's researchers call the peasant-farmers the "angry men" of the Russian populace); many Russians dislike, even detest, the regime yet like and support such communist devices as state ownership of the means of production and the concept of the welfare state; there is little chance that the Party and the regime will be overthrown.

What prompted the Air Force to have this research

performed?

The answer is simple. Nations are interrelated

social systems of great complexity in the modern world, and the impact of air weapons in any future war will go much beyond the physical damage which can be accomplished.

Since the definition of a target system has expanded and the potentiality of weapons has changed, it has become necessary to consider factors previously ignored. Among the most important of these are the psychological and sociological bases of community and national life.

In the case of the Soviet Union and its 213,000,000 people, this has necessitated turning social science methods to the description and analysis of the basic components of the Soviet system—the people, their key institutions, and the manner in which institutions and people interact.

The report gives the Air Force new analyses of the people and of basic institutions of the Soviet system -analyses which will have particular value in strategic planning.

Considerations of strengths and weaknesses of the Soviet system, loyalty and disloyalty of the people, or any other social vulnerabilities, provide a realistic framework within which Russian capabilities can be measured.

Whether at policy levels, in training programs, or in the hands of Air Force research experts, this study brings to each a more penetrating view and understanding of the USSR as it exists today.

To draw out the significant findings of the Air Force-Harvard study, Nation's Business interviewed Edmund O. Barker, the Air Force official most familiar with the Harvard material.

Mr. Barker's answers are based solely on the contents of the Harvard Project.

#### INSIDE RUSSIA

#### How will Malenkov's resignation affect future moves by the Soviet government?

Changes in leadership were expected by the Project. Barring profound crises (as might occur in agriculture), the outlook is for relative stability and continuation of substantially the present system regardless of "palace revolutions."

#### Will Malenkov's resignation affect the validity of the Project findings?

No-not at all, because the Project was primarily concerned with basic, largely unchanging, aspects of Soviet life, institutions, and people, rather than with the changing fortunes of leaders at the top involved in the struggle for power. These fundamental elements in Soviet national life are continuing: They weather crises and outlive leaders.



Voluminous Soviet study is discussed by its Air Force evaluators: from left, Lt. Col. Albert L. Betz, Col. Myron F. Barlow, Dr. Herman J. Sander, and Edmund O. Barker

#### Hundreds of refugees were interviewed to gain picture of Soviet society. Air Force will use the Project's findings to plan strategy it will use in event of war

It is evident that the changes in leadership (Malenkov's succeeding Stalin, Beria's execution, Malenkov's "resignation," Bulganin's accession—and tomorrow possibly Khrushchev) have not significantly changed or improved life for the Soviet masses. To the contrary, as successive leaders promise more and deliver less (that is, failure in consumer goods and agricultural programs), they may be significantly adding to popular discontent.

#### What forecasts can be made, using the Project findings?

A continuation of the cold war is expected for the next five years at least. All-out war seems unlikely. The struggle for power among the top leaders of Russia will continue. This is almost inevitable in the Soviet state unless a genuine change in the nature of the system occurs. The trend toward managerial bureaucracy may give the "committee" type of dictatorship a greater chance of stability in the USSR than many westerners are likely to predict.

#### What direction is Soviet over-all policy likely to take in the next five years?

The Soviet regime appears to be clearly committed to stabilization and consolidation both at home and abroad. Industrial productivity is to be heightened, the morale of the population improved, and the present position in Europe is to be maintained but not extended; expansive activities are to be centered in Asia and in "colonial" regions generally.

Two extreme possibilities are completely discarded: breakdown or continuation of the Soviet system's de-

velopment without any change.

#### INSIDE RUSSIA continued



Project spokesman Barker thumbs through final report. Study cost Air Force more than \$900,000

#### Are the Russian people likely to revolt against the regime?

No. There is scant evidence for the view that more than a very tiny part of the population would take appreciable risks to sabotage the regime or to aid western democracy.

#### What changes did the Project research indicate might occur in the Soviet system?

Changes will be evolutionary rather than revolutionary, and possibly in one of the following main directions, or some combination of them:

directions, or some combination of them:

1. Gradual reversion to "Stalinism," especially if a single leader attains unquestioned supremacy.

More emphasis on national bureaucracy, that is, greater control by managerial technicians than by Party ideological zealots.

3. Reversion to certain traditional, pre-Soviet patterns with strong development of Russian or Pan-Slavic nationalism and imperialism.

4. Gradual movement in directions likely to change—eventually—the essential nature of the Soviet system and to make possible stable accommodation with the West.

#### What is the present over-all strategy of the Soviet leaders?

They want to consolidate their internal position and exploit the weakness of the non-Soviet world by propaganda, diplomacy, fifth-column movements, and local rebellion, while waiting for the processes of history to produce Lenin's predicted decay of capitalism. The immediate causes of this policy seem to be a combination of the increased strength of the West, and the accentuation of internal difficulties in the USSR.

#### What does the present foreign policy of the USSR appear to be?

It is, to a significant degree, two-pronged:

One prong, ironically enough, involves "containment" of the revived strength of the West by trying to obstruct French ratification of EDC, German rearmament, stirring up old hostilities between Germany and France, dividing the United States and Great Britain on China policy and so on.

Increasing emphasis is placed on "intra-imperialist" conflicts and upon the allegedly disastrous eventual consequences of "internal contradictions" in western

economies.

There seems to be a rather definite decision—at least for the immediate future—to let our western system fall to pieces through its own internal dynamics, and with a certain minimum amount of nonmilitary facilitation on the part of the Soviets.

The other prong, of course, is a continued policy of nibbling away at the choicest of the overripe colonial morsels: Indochina is the latest victim, but others in Asia and Africa are presumably on the list.

#### What does the final report have to say about the Soviet program of "peaceful coexistence?"

The Soviet attitude toward "coexistence" is that it is tolerable as a temporary state of affairs. It is clear that the present leadership intends to cooperate with the free world only to the extent that this will advance the eventual prospect of a completely communist world.

Is the Soviet regime committed at home to a policy of relaxation of internal rules?

#### SOVIET CITIZENS' VIEWS OF AMERICA

This is how the majority of Soviet citizens view America and the West:

America (and the capitalistic West in general, but to a lesser degree) is aggressive and bent on world domination. This propaganda point has been established by dissociating the American government from two symbols which Soviet citizens still value: the American people and Franklin D. Roosevelt. The Soviet press insists that the U.S. government and its foreign policy do not represent the people. . . .

America is respected for its technology and its material power. The goal of overtaking and surpassing American production was a Soviet slogan from the beginning of the First Five-Year Plan. . . .

Capitalism is a decadent socio-economic system which survives only by exploitation of the workers and under the artificial stimulation of armament production. . . .

The standard of living of the rank-and-file citizen of western countries is lower than it is in the Soviet Union. . . .

Americans are materialistic and lack spiritual values. (These criticisms came overwhelmingly from intellectual émigrés.) . . .

Westerners are soft and can't take it.

All people are not treated alike in America. Certain racial and ethnic groups are discriminated against.

#### \$1,500,000,000 FOR PROPAGANDA

**The importance** of propaganda in the USSR is indicated by the budget. In 1950, out of a \$70,000,000,000 national income, \$1,500,000,000 went to propaganda activities.

The Soviet Union has some 6,000 special local schools, in addition to regional and national schools, for training propagandists. Trainees come from every part of the world to attend these schools.

Soviet propaganda has sought to reverse certain stereotyped propaganda images. Our mental picture of the Bolshevik, who was always a heavily bearded figure sitting on a huge pile of bombs with a hammer in his hand and a sickle in his teeth, has now been picked up by the Soviets for their own use; they have Uncle Sam sitting on an enormous pile of atom and hydrogen bombs with a Coca-Cola bottle in his mouth.

To propagandize Soviet factory workers on the exploitation and enslavement of workers in America, a film was shown concerning a police-striker fight in Detroit. In the fighting, some white and Negro workers were injured and had to be carried on stretchers to waiting ambulances. As the injured were carried past the camera, feet first, the Soviet factory workers noticed that the American workers wore shoes without holes in the soles. Word quickly went around that the picture was a fake.

Yes. The rulers clearly want better internal morale and various improvements. At the 1954 Supreme Soviet, Malenkov and Khrushchev complained about the standard of labor discipline, the quality of output, and the rate of increase in productivity. The Soviet leaders are indeed facing a dilemma, but we must not be guilty of easy optimism as to the outcome. In the first place, we must remember that a little sop can go a long way in the Soviet system. Expectations are low and there is also still sufficient belief in the reality of "capitalist aggression" to make the people satisfied with small concessions.

#### What other forecasts are found in the final report concerning the future of the Soviet system?

 An improvement in the standard of living and a slackening of the tempo of development, accompanied by an easing of rigid administration and intense terror, could effect a substantial and perhaps a profound reorientation of the population toward the regime.

2. As time goes on, the role permitted rational technical bureaucracy in running things within the limits of set policy will increase, and such technical considerations may come to have more effect on the actual direction of policy.

3. Concerning agriculture, the authors of the final report are convinced that the regime will not give up the collective farm system, and this will remain a source of friction, tension, and lowered production.

What does the final report forecast for the future of the USSR?

In short, the best prediction for the short-run is that, at the worst, the present regime may revert to Stalinism, and at best it may become a more popular, or at least less resented, but no less totalitarian government.

In neither case do we anticipate that either the long-range goals or the strategy of Russian foreign policy will be greatly changed in the next decade, although there may be some modifications of tactics and methods.

#### What has the Project to say about Soviet society in general, and the emergence of a managerial bureaucracy in particular?

It is certainly true that there has been some crucial crystallization of Soviet society. A new kind of bourgeoisie has become accustomed to relative luxury. Social stratification is more rigid. The decrease in social mobility has lessened a certain kind of vital dynamism which characterized Soviet society for a long period. An intrenched group has strong vested interests in the status quo. There is a conflict between two conceptions: the old ideal of party asceticism, and that of "the rich new life." However, in spite of some tendency in the direction of managerial bureaucracy, the ideological element in communism weighs against a very rapid bureaucratic dominance in the USSR.

#### If the factory-manager class emerges as a powerful group in the USSR, would this lead to a "managerial revolution?"

Far from seeking great changes in the industrial system, these key managerial personnel want to maintain it in its present form. They have a considerable stake in its continuance through high salaries, sizable cash bonuses, production rewards, better apartments, and other special privileges attaching to high position. Within the factory system, they seek to reduce interference from the center—that is, Moscow-located ministry chiefs—and to make the system work more smoothly.

#### Will you explain what is implied in the Project reference to the fact that Soviet people have built-in "mental radar?"

Living in a country where a slip of the tongue may land you in jail, (Continued on page 48)

#### RUSSIA'S WORKING FORCE

The approximate urban population of Russia in 1953 was 86,000,000, with 124,000,-000 living in rural areas.

Agricultural work claims about 55 per cent of the Soviet labor force.

The labor force is about 110,000,000 people. This is about 75 per cent of all people, male and female, 15 years of age or older. Half of the total Soviet labor force is women.

Some 60 to 65 per cent of all women over the age of 15 are employed.

In agricultural employment, women hold 60 per cent of the jobs. In the nonagricultural economy of the USSR they hold half of the jobs.

## THEY BUILD ATOM'S ROAD TO PEACE

By PHILIP GUSTAFSON





Dean Ralph A. Sawyer (left) and Prof. Henry J. Gomberg with model of \$1,500,000 Phoenix Laboratory

TWENTY-FIVE-THOUSAND believers in private enterprise have bought themselves a share in the atomic age. These shareholders range from housewives to industrial giants like General Motors and Ford whose contributions run into seven figures. Among them, they have piled up \$7,500,000 to help find peacetime applications of nuclear energy and to study its effects on society.

These 25,000 have made cash gifts to Phoenix Project, the pride and joy of the University of Michigan and its students, alumni and friends. Phoenix Project is the only organized non-government operation which attempts to come to grips on a comprehensive scale with the problems atomic energy creates. It lives by the grace of private donations alone; yet in

Phoenix Project started as a memorial to University of Michigan war dead. Now this research center—dedicated to peaceful uses of the atom and financed wholly by private enterprise—has become a "light high in the sky for future generations"

peacetime research it ranks with the country's great nuclear laboratories—Brookhaven, Argonne and Oak Ridge—supported by government funds.

Phoenix is not a foundation, nor an institute. It is simply a project, run by deans and professors who also carry full-time academic schedules. It is kept going by teachers who conduct its research without additional salaries. In five years, Phoenix has grown until it consists of nearly 100 research projects; it permeates practically every division of the university and virtually every department of human knowledge.

Phoenix sprang into being after Hiroshima as a memorial to University of Michigan war dead—a means of turning the destructive potential of the bomb to human benefit. From the idea of one Mich-



Phoenix Memorial Laboratory now under construction should be completed by 1956

igan graduate it ran through students and alumni in an inspired money-raising drive. Then it caught on in industry and more than 350 companies bought the Phoenix idea. Students, friends and alumni of Michigan gave about half, and companies all over the country put up the rest. Between them, they oversubscribed the original goal by more than \$1,000,000 and formed a partnership to put the atom to work.

The surprising thing about the whole business today—six years after the fund-raising campaign—is that all the Phoenix stockholders, industrial and in-

dividual, are just as excited as ever.

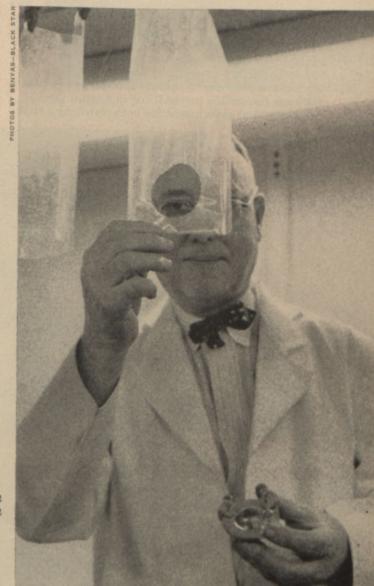
All frilled up for afternoon tea, Michigan alumnae cluster in somebody's parlor to hear a Phoenix professor tell what he is doing with nuclear energy. Men graduates write for material and make speeches before their luncheon clubs on how the isotope influences the love life of the trichinosis larva. All the contributors get the latest dope on how their money is being used from an annual stockholders' report mailed out to each of them. Not satisfied with this, they troop in by the hundreds for "Atom Day," held on the campus each year, and listen to addresses on just what the latest discoveries will mean.

Industry is no less excited, because results of the Phoenix researches already are being put to work. Some of the contributors invested their money in specific research projects, some gave theirs without strings, leaving Phoenix free to choose investigations of the greatest general benefit. In both categories, results being turned over to industry are revolution-

izing old ways of doing things.

Perhaps the most immediate and spectacular returns have come from the use of radioactivity to

Dr. Leo Carrick, who is director of a project on coatings on metal, examines alkyd resin film



#### MICHIGAN MEMORIAL PHOENIX PROJECT

preserve food, in which Nash-Kelvinator sank its contribution.

Interesting results are already being achieved from the largest contribution of all, \$1,500,000 General Motors invested in what is known as the Institute for Industrial Health, set up to investigate the health and safety problems arising in industry—including those caused by introductions of atomic energy. This is in line with the dual purpose of the project—not only to find applications of atomic energy but to anticipate the social problems its application will cause. In this field, Phoenix is unique.

In line with its social policy, the Project held the first country-wide symposium of lawyers on the subject of atomic law—150 attended from all parts of the United States. From this beginning has grown the authoritative five-volume Proceedings of the Institute on Industrial and Legal Problems of Atomic Energy. As a result of his work with Phoenix, E. Blythe Stasen, dean of the Michigan Law School, has become a leading authority on atomic matters.

The dean made the first complete analysis of the legal problems which private industry must meet before it can enter the atomic energy field and he is in constant demand for opinions. Dean Stasen was chairman of the American Bar Association's Special Committee on Atomic Law and appeared before the Joint Committee on Atomic Energy when it was holding hearings on the new Atomic Energy Act. He is said to be largely responsible for changes in the Act which allow business to operate nuclear power plants and lease fissionable material for industrial use.

Industry and government are both watching a study

of how radioactive materials affect the operation of a jet engine. Early contract work sponsored by the Atomic Energy Commission—with Phoenix funds—failed to produce positive results. The AEC wrote off the project but the Phoenix research team carried the work further—to the discovery that, under the right conditions, a jet burner could put out ten per cent more thrust with radiation than without it. The Packard Motor Car Company, a large manufacturer of jet engines, was so impressed with these results that it contributed \$25,000 to continue this research project along whatever lines Phoenix engineers thought best. Findings will be available to everybody.

In the sterilization of drugs Phoenix has an extensive program in which Parke-Davis is participating and other large drug organizations are cooperating. It is working with the Aluminum Company of America, the Electrometallurgical Corporation, Battelle Institute and the Army Ordnance Department in adaptations of its work in autoradiography. This is a new process of microphotography which uses radioactive tracers to take pictures of chemical and physical changes as they occur. It has invaluable applications in new metallurgical processes.

Phoenix has become a clearinghouse for industries all over the country seeking information on the application of atomic energy. Hundreds of inquiries are handled every year for companies that want help on specific problems. One asks for a way to control bacterial contamination in milk. Another is looking for an accurate indexing method for working parts of a machine tool. A third writes:

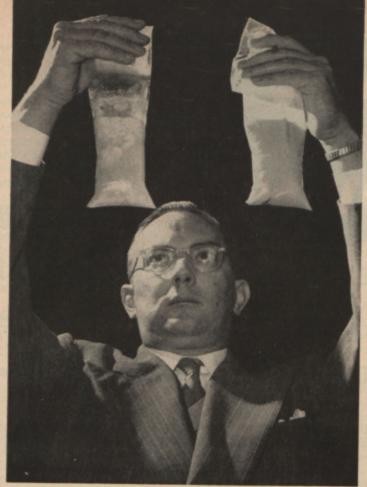
"How can we approach this atomic energy business so we won't be left out in the cold?"

Phoenix is not a nuclear consulting service. It leaves that to industry's own associations and to private consultants. But, if the information is lying around, Phoenix directors feel that it is their place to pass it on.

Industry likes to work with Phoenix. The project has no bureaucratic red tape, no security restrictions. It can set up long-term projects while the government is limited by the (Continued on page 68)

Coeds Peggy MacIver, Romance Frederick and Dianne Duncan eye rats used in project's experiment





Prof. Lloyd E. Brownell displays experimental plastic bags of milk. Milk at left, not irradiated, turned sour and curdled in storage. Milk at right, exposed to gamma radiation, stored under same conditions, stayed fresh

The Project's source of radioactive Cobalt 60 is stored for safekeeping under water at the bottom of a well when not in use. It's used for studies of food preservation, sterilization of organisms and other experiments Professor Henry J. Gomberg addresses members of the American Association of University Women at Ypsilanti, Mich. He and other Phoenix Project officials make frequent talks to civic and professional groups in the state and in nearby areas on the peacetime uses of atomic energy





#### FAIR TRADE FACES SHOWDOWN

Here are

the views of supporters and opponents. You'll be hearing more from both sides as the struggle over price maintenance unfolds

By CHARLES B. SEIB

FAIR TRADE may be in its year of decision. In the legislatures, in the courts, in the marketplace, 1955 brings crucial tests for this controversial system of price maintenance.

A presidential commission studying antitrust laws prepares to blast Fair Trade and urge repeal of federal authorizing legislation.

Meanwhile, Fair Trade's supporters try again to get Congress to pass a fair-trade law for the District of Columbia

In a dozen courts, opponents challenge the constitutionality of state fair trade laws, while backers try to keep cut-price shipments from being mailed into fair-trade states.

Discount houses flourish. Big retailers, fighting the discounters, cut fair-trade prices themselves and warn manufacturers to enforce Fair Trade or abandon it. Many manufacturers launch now-or-never drives to make fair-trade prices stick, while others show disgust with the whole system.

Here's what's involved in the fair-trade battle:

What is Fair Trade? It's a price-maintenance system under which the producer of a nationally advertised brand name article may contract with whole-salers or retailers to set minimum resale prices on the article he makes. Once a manufacturer signs such a contract with one distributor in a state authorizing this system, and notifies the other distributors in that state, all are bound to observe the minimum prices set in the contract.

This is the so-called non-signer clause, the real heart of Fair Trade. No retailer is required to stock or sell a fair-traded product, of course.

But if he does sell it and fails to charge at least the minimum contract price, he is subject to suits for damages and other penalties.

Where does Fair Trade operate? Forty-five states—all but Texas, Vermont, Missouri and the District of Columbia—have laws authorizing Fair Trade. However, state court decisions have, at least for the time being, limited or ended the effectiveness of Fair Trade in several of the 45 states—Arkansas, Florida, Georgia, Michigan, Nebraska and Utah.

What is the history of Fair Trade? It's a product of the development of widely advertised brands. Some retailers soon found they could build business by cutting their prices on these well known brands. The manufacturers, feeling that this price cutting would endanger the integrity of their brand names, started Fair Trade to prevent this. The small retailers soon took over the fight for Fair Trade, however, as a weapon against the large chains and other price-cutters.

New Jersey had a law in 1916 permitting price maintenance "by notice," but the first really modern fair-trade law was enacted in California in 1931. The all-important non-signer clause was added in 1933. Several other states followed in the early 1930's and, after a favorable Supreme Court ruling in 1936 and favorable federal legislation in 1937, the movement spread rapidly.

The state laws are remarkably uniform. They say that contracts fixing minimum prices on the sale or resale of trade-marked or branded items are valid and enforceable in the courts—providing the items involved are in free and open competition with similar products of other manufacturers. Sales at less than the minimum contract price—even by a non-signer—are unfair competition, and the manufacturer or another distributor can bring a damage suit or injunction proceeding. Horizontal price agreements among manufacturers, wholesalers or retailers are specifically prohibited.

Close-out or damaged-goods sales at cut prices are permitted, but not "evasive" selling tactics, such as premiums and gifts.

Each state fair-trade law applied originally only to intrastate trade. The Miller-Tydings law, passed by Congress in 1937, broke through state lines. It said a state law also covered any items sold in that state even if the manufacturer was in another state. Antitrust laws, it provided, would not apply to contracts to maintain prices on such interstate transactions.

Fair Trade suffered a body blow in 1951 when, in the so-called Schwegmann Case, the Supreme Court ruled in effect that the non-signer clause was valid only for intrastate transactions. Soon afterwards the Third Circuit Court of Appeals held that retailers

selling to consumers in other states were not bound by fair-trade prices. The Miller-Tydings law thus

was virtually nullified.

Fair Trade backers rallied, however, and in 1952 swept the McGuire Act through Congress by heavy margins. This declared that the non-signer clause applied to all business in fair-trade states-both interstate and intrastate. It also sought to cancel out the Circuit Court ruling by saying specifically that retail sales across state lines also should be subject to fair-trade prices. This law is now in effect.

How big is Fair Trade today? Depending on whose estimate you use, somewhere between four per cent and 20 per cent of all retail sales-which means between \$7,000,000,000 and \$34,000,000,000 a year—is sold at fair-trade prices. The best guess is around seven or eight per cent, which would be some \$12,-000,000,000 to \$14,000,000,000 annually.

What products are most commonly fairtraded? Fair Trade's greatest strength is in the drug and cosmetics field. Other items widely fairtraded include small electrical appliances, silverware and jewelry, books, cameras and other photographic goods, sporting goods, hardware, liquor, cigars and some other tobacco products, auto accessories, clocks and watches, fountain pens, luggage, electronic products and furniture. Fair Trade is not found to any extent in staple commodities, unbranded goods, or goods whose prices fluctuate rapidly. It's being used less and less on large appliances, where trade-in allowances make it difficult to control the selling price.

How is Fair Trade doing in the market place? Fair Traders are suffering under the onslaught of discount houses and other price-cutters who take advantage of the fact that Fair Trade is extremely difficult to enforce effectively. The discount houses, until recently concentrated in a few large cities and specializing in a few products, are mushrooming all over the country and selling in more and more fields. It's now estimated there are at least 10,000 of them, with sales of \$5,000,000,000 or more annually.

The National Retail Dry Goods Association reports that "discount houses are going everywhere except in a few isolated localities," and that in some cities they account for 75 to 90 per cent of all appliance sales.

Some fair-trade stores are trying to fight the discount house by providing better credit terms, faster delivery and other improved services. Others are starting to cut prices themselves or to increase their use of private brands. Still other merchants are discontinuing brands with poorly enforced fair-trade prices.

To meet this problem, many manufacturers are stepping up enforcement efforts and trying harder to cut off supplies from discount houses. They're bringing more suits to enjoin price violations and hiring shoppers to search for price-cutting. Sunbeam Corporation is spending close to \$1,000,000 a year on enforcement. General Electric says it has brought more than 500 suits since the passage of the McGuire Act. Ekco Products Co. temporarily stopped shipments of its most heavily advertised lines into price-cutting areas, and refranchised only those distributors willing to be bound by tight, new contracts. Many manufacturers have been refusing to honor service guaranties on any product not bought from an authorized dealer.

How's Fair Trade doing in the courts? The constitutionality of the McGuire Act has been challenged several times, but appeals courts have uniformly upheld it and the Supreme Court has consistently refused to review these decisions.

Two legal threats to Fair Trade remain, however. The courts are interpreting the McGuire Act as clearly making subject to Fair Trade any sales by a retailer in a fair-trade state to a customer in another fair-trade state. But there is a big question whether fair-trade prices can be enforced against a retailer in a non-fair-trade area shipping to a customer in a fairtrade area. Believing the answer to be "No," some big discount houses have set up subsidiaries in the District of Columbia or other non-fair-trade areas to carry on mail order business into the fair-trade states. It will be many months before the courts decide the legality of this. Failure to outlaw such sales would be a setback for Fair Trade.

The other legal threat stems from a series of cases in state courts challenging various aspects of the state fair-trade laws, particularly the constitutionality of the non-signer clause. Fair-trade backers are winning most of these cases, but in a few states the verdicts have been going against them.

How are the sides lined up on Fair Trade? It's one of those issues which scramble the usual dividing lines. Party affiliations or "liberal" and "conservative" labels mean nothing.

Probably the most vocal and powerful group fighting for Fair Trade is the National Association of Retail Druggists. This group operates on its own and also-together with drug wholesalers and drug manufacturers-through the Bureau of Education on Fair Trade. Owners of trade marks—that is, manufacturers-are organized for Fair Trade chiefly in the American Fair Trade Council. Sunbeam Corporation, General Electric, Westinghouse and Revere Copper and Brass, Inc., are among the most active pro-fair-trade manufacturers.

Other groups on Fair Trade's side include the National Retail Jewelers Association and the Retail Tobacco Dealers of America. The U.S. Department of Commerce endorsed Fair Trade under President Truman, and both House and Senate Small Business committees have been active for Fair Trade in both Democratic and Republican Congresses. Lawmakers hottest for the idea include Senators Humphrey of

Minnesota and Capehart of Indiana.

On the other hand, the Department of Justice has opposed Fair Trade under both Republican and Democratic administrations. Also fighting it are many large retailers like R. H. Macy and Co., Inc., and Julius Gutman & Co., of Baltimore, along with such usually divergent publications as the St. Louis Post Dispatch and the Wall Street Journal. Organizations vocal in their opposition include the National Grange, National Farmers Union and American Farm Bureau Federation, the American Federation of Labor and the Congress of Industrial Organizations, and the General Federation of Women's Clubs.

#### TURN THE PAGE FOR **CONFLICTING VIEWS** ON FAIR TRADE

#### **FAIR TRADE**

#### **ARGUMENTS FOR:**

1. "Fair Trade protects the producer who spends millions promoting his product and making his trade mark or brand name an immensely valuable asset." Price cutters concentrate on nationally advertised brands; their price reductions attract customers only if the regular price and quality are well known. But the price cuts cause people to lose confidence in the product, thinking it was overpriced to start with or that its quality has been lowered, and sales begin to drop. At the same time, some retailers who can't match the price-cutter stop stocking the item or "bury" it, and sales slide still further. Ultimately, sales become concentrated in a few outlets.

Herman T. Van Mell, general counsel for Sunbeam, told a Senate subcommittee that extensive price wars in the District of Columbia on Sunbeam products dropped Sunbeam's sales there 11 per cent in 1953 at the same time that sales throughout the rest of the country were going up 15 per cent.

Twenty discount dealers account for 90 per cent of Sunbeam sales in the District, he said, and most of the 600 regular retail outlets have lost interest in stocking Sunbeam products.

**2.** "Fair Trade also protects the small independent merchants." To survive, these merchants need the trade attracted by nationally advertised brands, and need that trade at fair-trade prices. Unlike the big retailer, the small merchant can't sell on his reputation or use private brands; nor does he have the resources to fight a price war with the price-cutter. The price-cutter puts him in a box. If the small retailer tries to maintain fair-trade prices, he loses his customers to the price-cutter. And if he tries to meet the price-cutter's offer, he usually has to take a loss.

Opponents are wrong in claiming Fair Trade protects the inefficient merchant and boosts distribution costs.

A study made by Eli Lilly and Co., a leading drug manufacturer, shows drug stores in fair-trade states averaging 26.17 per cent operating costs, compared with 27.57 per cent for stores in non-fair-trade areas. Fair Trade brings only uniform prices, not uniform profits. Any reduction in operating costs increases profit margins just as much under Fair Trade as without Fair Trade, so the incentive to efficient retailing is as strong as ever. Inefficient retailers will go broke just as fast under Fair Trade, but they'll go broke as a result of their own inefficiency and not unrestrained price cutting.

**3.** "Fair Trade protects the consumer." The people who undercut fair-trade prices have two purposes: to run their competitors out of business and then boost prices, or to lure customers into the store with bargains on branded items and then peddle inferior products at high mark-ups.

When these "price jugglers" advertise bargains on well known brands, the public thinks everything they sell is a similar bargain. But actually the price-jugglers are more than covering their losses on the "bait" big-name brands by fat profits on the rest of their merchandise.

Anyhow, fair-trade prices are not excessive. They can't be, because fair-trade items must, by law, be in constant competition with similar items. These include not only other fair-traded items but also non-fair-traded items, among them the private brands of the big retailers like Macy's, Sears and Montgomery Ward. Consumers can choose, for example, from 56 competing brands of face powder ranging in price from nine cents an ounce to \$1.20, from 21 electric toasters ranging from \$1.98 to \$24.50, from nine types of portable typewriters ranging from \$77 to \$120, and so on.

A. C. Neilsen, an independent market research firm, surveyed drug store prices from March to August, 1951, and reported that consumers in fair-trade states paid 1.4 cents less per product on the average than consumers in non-fair-trade areas for the same 24 leading fair-trade brands of tooth-pastes, shaving creams, shampoos and other drug items.

If an item is the target of too much price cutting, the consumer loses because the item vanishes from the market—like the \$1 watch. The right way to bring prices down is through mass production and mass distribution, and to get this you need the thousands of small stores that Fair Trade protects.

Fair Trade helps the consumer in other ways. When small stores go out of business, the public loses their special services—neighborhood shopping, fast delivery, flexible credit. Deep price-cutting discourages the introduction and perfection of new products, because the average retailer will not promote a new item unless he can expect a profit. Consumers can buy fair-trade items with confidence in their quality, because so long as the brand name is a valuable asset, the maker will protect it with a high-quality product.

**4.** "Fair Trade prevents monopolies." It prevents price-cutting that promotes monopoly by driving small firms out of business. Fair-trade laws not only specifically outlaw competition-killing agreements among retailers or among wholesalers or among manufacturers, but go beyond that to require full competition with other brands.

Fair Trade is certainly no more monopolistic than many other forms of resale price maintenance which each year account for a far greater volume of retail sales—and without any public protest. Newspaper and magazine publishers maintain their prices through consignment selling. Automobile manufacturers and other firms set resale prices through franchised dealers. Some manufacturers control prices by having their own retail outlets or using door-to-door salesmen. All these other methods account for some \$30,000,000,000 or more in sales each year, far above the fair-trade total. Yet no one questions their legal basis or economic justice.

# **ARGUMENTS AGAINST:**

1 "Most important, Fair Trade deprives the consumer of his right to buy at the lowest possible price." If the idea behind Fair Trade were really to eliminate the loss-leader, as some supporters claim, then the way to do this would be through tougher laws aimed specifically at the loss leader. But that's not the real purpose of Fair Trade. Its real purpose is to boost retail profit margins so as to guarantee all retailers a mark-up of 50 per cent or more on every item, thus protecting the inefficient retailers. Fair Trade makes no distinction between predatory price-cutting and old-fashioned free enterprise competition. It outlaws both.

If a retailer is able to sell an item at a lower price—whether because he is a better manager, is in a cheaper part of town, has cut down on services or is willing to trade a lower mark-up for quick turnover and large volume—why should the consumer not be able to buy

at this lower price?

The discount houses are not engaged in loss-leader selling or price-juggling. They're not interested in off-brand merchandise, since it doesn't- turn over quickly enough. They make a satisfactory profit on every item they sell, and do it by having low-rent quarters, refusing to deliver or install, denying credit, using a minimum of floor displays, having fewer salesmen, holding down on advertising, and refusing to make exchanges or give refunds.

If the consumer is willing to put up with all this, he certainly is entitled to share in the savings. Moreover, many large discount houses do extend credit, give exchanges and refunds, provide other services and still manage to sell at big discounts, doing it almost entirely on fast turnover and large volume.

Surveys prove that Fair Trade keeps prices high. The Department of Justice said it added up the cost of items advertised by District of Columbia drug stores between April and June 1954, and found a total cost of \$1,602.44 for 736 products—28 per cent below the \$2,241.10 they would have cost under Fair Trade. A similar survey of the appliance field showed that 245 items would have cost \$4,442.69 in a District discount house, 27.7 per cent below their Fair Trade price of \$6,142.33.

2. "Fair Trade is essentially monopolistic." In effect, it eliminates competition on a particular item at the retail level. Consumers are entitled not only to competition between rival products but also to competition between dealers handling the same product. "Under Fair Trade," says the Justice Department, "private parties enter into price-fixing arrangements without public regulation or supervision. The public interest is not represented at any stage."

Fair Trade also makes price-fixing agreements easier among manufacturers or among retailers. As Justice puts it, Fair Trade "is susceptible of use as a cloak to hide general price-fixing activities." Firms may not formally agree on their prices, but they can use follow-the-leader pricing far more easily when one

leading manufacturer fixes a fair-trade price. The Federal Trade Commission, in opposing the McGuire Act in 1952, said that "any group trying to fix prices would be foolish to use any other road than Fair Trade."

**3.** "Fair Trade also hurts rather than protects, the manufacturer." He gets the same return whether he sells an article through a discount house or through a fair-trade retailer. But the price-cutters bring him a new mass market that he can't reach at artificially high fair-trade prices.

Most manufacturers are really luke-warm to Fair Trade and use it only because of pressure from retailers who need its protection. Remove the coercive pressure of organized retailers and you'd be surprised at how many manufacturers would stop fair-trading

their products.

4. "But the real paradox of Fair Trade is that it harms the retailers who are fighting hardest for it." The high, rigid prices of Fair Trade encourage big retailers to put out private brands, which are taking over a bigger share of the market in certain fields, to the obvious disadvantage of the small merchant. Some manufacturers even make for big retailers "private brands" that are almost identical with items these manufacturers are fair-trading through other retailers. The publicity given this fact is another blow at the retailer trying to sell fair-traded products.

Under Fair Trade, the small retailer finds himself in a price straitjacket of his own making. He can't cut his price to meet discount house or other competition on fair-traded items, even if he wants to and can afford to. Even the high profit margin guaranteed by Fair Trade is turned against the small retailer. The efficient merchant, the one who could sell for less if it weren't for Fair Trade, uses the high profit margin he makes on fair-trade items to finance bargains on non-fair-trade items or to pay for an elaborate advertising and promotion campaign.

Finally, the small retailer suffers when high profits artificially maintained by Fair Trade attract more firms into a given field. For example, the high margins on drugs and cosmetics under Fair Trade led the food supermarkets to stock these items; now they account for a sizable percentage of all drug and cosmetic sales.

The small retailer is usually the first casualty when a field becomes overcrowded.

To sum up, the entire system of Fair Trade is contrary to the American tradition of the free marketplace. It attempts to set prices through injunctions and other legal weapons instead of permitting them to be set by the natural forces of supply and demand and free competition.

Largely because of the fact that it is so contrary to American traditions, it has become impossible to enforce, and no law that cannot be enforced should remain on the statute books.



# HOW TO ENTERTAIN A CONVENTION By LOUIS CASSELS

Windy masters of ceremonies, underbudgeted programs and poorly selected entertainment can make your business, show fall flat. Here are ten tips for committee chairmen

IT HAPPENED in Chicago a couple of years ago. The X Association was winding up its annual convention with a black tie banquet. The martinis had been dry, the steaks thick, the coffee hot. Members sat back to wait for the "entertainment" that would come next.

The toastmaster stood up and rapped his knife on a glass. The show would go on in just a moment, he promised.

But first he felt he should mention something that he knew was in everyone's heart.

"This has been a sad year for our membership and many of the familiar faces are missing tonight," he said. "I am going to ask that we all stand with bowed head while the secretary reads the roll of those who have passed on since last we met."

It is not recorded that any of the members wept. But one man had to fight hard to keep back the tears. He was the comedian who, as soon as the last obituary was read, was summoned to wring a few embarrassed laughs out of the coldest audience ever assembled south of the Klondike.

Fortunately, shows at conventions are not often as grim as that. But it is a rare businessman who cannot recall evenings that were almost as bad. Probably you have your own grisly

memories of the entertainment committee chairman with a passion for Swiss bellringers; or the one who thought Miss Pizza Pie of 1950 must have a nice voice because she had such an ample figure; or the gay blade who forgot, when he booked the strip-tease act, that the men were bringing their wives.

Occasionally, the atrocious talent foisted on convention audiences goads the guests into open rebellion, as it did at Atlantic City several years ago, when a meeting of leading businessmen of America pelted the performers with Parker House rolls. More often, the captive audience suffers in silence

and then goes home wondering why somebody loused up the whole convention with a badly planned and clumsily presented, inappropriate

entertainment program.

One man who asked himself that question, and came up with a profitable career, is Jack Morton of Washington, D.C. Mr. Morton is a tall, soft-spoken, 44-year-old southerner who has been well known in the capital for a couple of decades as a booking agent and business manager for dance bands. Since a lot of his jobs came from the hundreds of conventions held in Washington every year, he dealt often with businessmen who had been thrust into the thankless role of entertainment chairman.

Watching these well intentioned amateurs struggle with the unfamiliar task of hiring musicians and variety acts, Mr. Morton concluded what businessmen needed was the same sort of professional advice in the entertainment field that they were acustomed to getting in law, advertising and public relations.

This reasoning led Mr. Morton to set up shop in 1948 as "Entertainment Counselor to Business." His firm, Jack Morton Productions, Inc., now has offices in New York and Washington, and is planning to open other branches soon, probably in Chicago, Detroit and Dallas. His clients include the Chamber of Commerce of the United States, the National Association of Real Estate Boards, American Trucking Association, American Dental Association, American Retail Federation, International Business Machines, Goodyear Tire & Rubber Co., Armstrong Cork Co., and many others.

Mr. Morton is prepared to help them with any problem remotely connected with business entertainment, from decorating a hospitality room to hiring a Santa Claus for an office Christmas party. He also stages dramatic skits for sales meetings. But his principal service is to take over completely the planning and producing of smooth, fast-paced convention shows that combine good talent with good taste. Last year, Jack Morton Productions put on such shows at 75 business meetings in 27 cities. This year, Mr. Morton expects to handle entertainment programs at more than 100 conventions.

The biggest problem Mr. Morton encounters in putting on a good convention show is persuading the sponsor to provide an adequate

budget.

Virtually every week he has a conversation with some prospective client that goes something like this:

Businessman: "We want to get (Continued on page 87)



OVER-SEXY show often offends all the women present in a mixed audience and at least some of the men



PRETTY singer is a sure-fire crowd pleaser. Ann Crowley illustrates the point. Best shows include singer, novelty act





AVOID booking comics who like to unload on convention audiences the off-color stories they can't tell elsewhere





YOU generally get what you pay for in entertainment. Top performers like George Gobel are worth what they charge





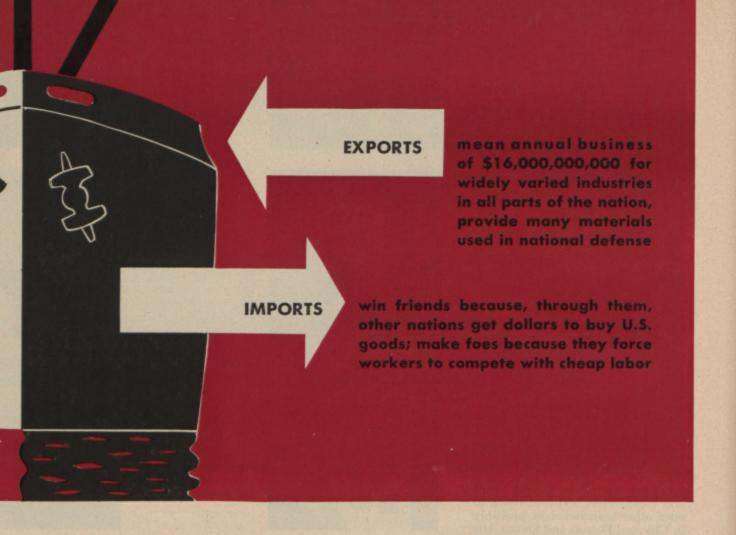
WARN M.C. to keep his own material short and not to plug sponsor's product audience already knows who paid for the show





FOR family groups, please kids with jugglers, magicians like Harry Baker, left, and grown-ups will be happy





# YOUR STAKE IN THE TARIFF FIGHT

Since colonial days imports have aroused angry debates but never has foreign trade affected so many people so vitally as it does today By TRIS COFFIN

A DEBATE full of fury and statistics rages to its close in Congress. Of the arguments, President Eisenhower said thoughtfully, "Our domestic employment, our standard of living, our security and the solidarity of the free world—all are involved."

Those on both sides of the oratory and back stage maneuvering agree the outcome will decisively affect American business, world trade, the cold war, even politics in Parkersburg, W. Va., and the rolling tobacco country of southern Maryland.

The debate is over House Resolution 1, which would extend the President's power to cut tariffs without the specific approval of Congress in each case.

Tariff has always been a fighting word on Capitol Hill. It was a live issue in the Revolution and in the Civil War. It aroused some of the angriest debates of the Eighty-fourth Congress.

Boiled down, the argument is over how wide to open the door for American trade to spread through the world. The rub is that, for every inch the door is opened, products from other lands enter the United States to compete with local factories.

Never before in all their bitter history have tariffs nudged so close to American shops, factories and farms. Twenty three billion dollars of American private capital is invested abroad. Our annual exports of goods and services total almost \$16,000,000,000 and come from every corner of the United States. One twelfth of our farm lands produce for foreign markets. John C. Ray, spokesman for the Detroit Board of Trade, told the House Ways and Means Committee that "one of every seven employed in manufacturing in Detroit owes his living to foreign trade in a substantial degree."

Some 160,000 employes in the iron and steel industry, or more than 16 per cent, are dependent on our trade abroad.

Other industries with a high percentage of their

labor producing for export directly and indirectly include: tobacco manufacturers, 12.1 per cent; textile mill products, 14.5; chemicals, 13.1; oil and coal products, 13.3; rubber products, 11.8; nonferrous metals, 13.9; agricultural, mining and construction machinery, 19.6; metalworking machinery, 16.5; motors and generators, 16.4; professional and scientific equipment, 12.1.

New opportunities for export trade come to American business daily. The demand for American products, in fact, is limited only by the ability to pay. This is why Sweden, for example, says, "If you want us to buy American machinery, which we prefer, you will have to let us sell our clothespins freely in the United States. Otherwise, we have no choice but to swap clothespins for machinery from Russia."

Lined up against free trade and low tariffs are some 30 domestic industries hit directly by imports. These total close to \$11,000,000,000 annually of which about \$6,000,000,000 are non-competitive and enter duty free.

The coal industry, angered by the import of residual oil from Venezuela, has worn a path to congressional and administration offices. So have the watch industry struck by Swiss imports, bicycle manufacturers who have lost a whopping share of the United States market to foreign two-wheelers, dairy farmers protesting Danish cheeses, and clothespin makers.

Added to this force are those irritated by tariff walls of our neighbors. This was illustrated by a sharp exchange between Secretary of State John Foster Dulles and Rep. John D. Dingell of Detroit, usually a backer of free trade and low tariff.

At the crowded Ways and Means Committee hearing, the congressman demanded, "What is the State Department doing to reduce Canadian tariffs against American beer? It is so high that our beer is almost prohibitive in Canada."

The Secretary, plainly surprised, said he did not know. Well, would the State Department move in to correct this? Mr. Dulles would not commit himself.

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When tariffs are raised to protect one home industry, the rebound often strikes another. After Swiss watch tariffs were raised 50 per cent to protect the Massachusetts watch industry, Switzerland stopped buying our dried milk, and the future of its large purchases of Maryland tobacco is in doubt. Danish buying of American coal halted soon after quotas were imposed on blue cheese from Denmark, as requested by the Wisconsin dairy industry.

This arguing over tariffs is as old as mankind. As soon as caravans moved west with the riches of the Orient, cities, states and empires demanded a tribute for entrance or safe passage. Athens charged a two per cent tariff or import duty. The Roman Empire collected a like fee. When the empires of antiquity collapsed, feudal lords collected tariffs of whatever the traffic would bear. Private armies attached themselves, for a fee, to commercial travelers and discouraged this legal looting.

The American colony was loaded with tariffs from its earliest days. Almost every colonial assembly levied import duties to raise money. This was in addition to heavy British tariffs on goods entering the colonies. Payment of British tariffs was a rousing issue in colonial America nine years before the Declaration of Independence. It all started when Britain, in 1767, hung a tariff on such major imports as tea (six cents (Continued on page 74)



President Eisenhower's request for authority to cut tariff rates without specific approval of Congress reopened age-old argument on imports



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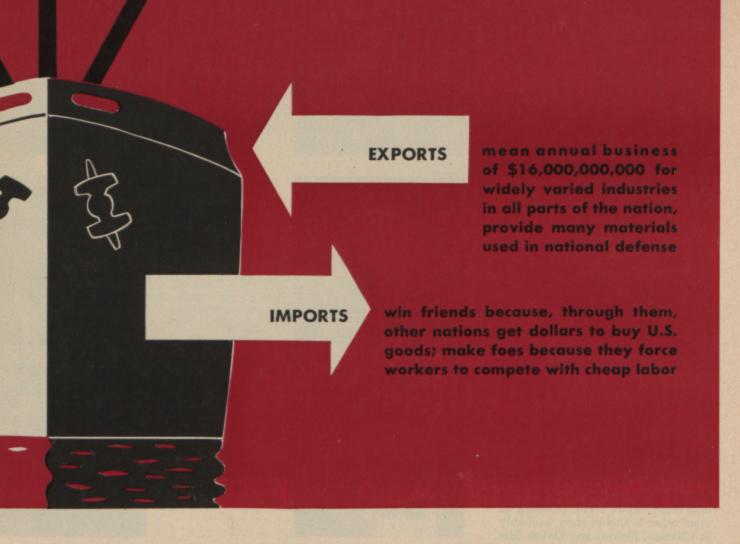
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# HOW'S

ernment debt has more than doubled, from \$15,917,000,000 to \$33,560,000,000 at the end of 1953. It is quite safe to assume that the flood of new issues in the coming year, about equal to the \$7,000,000,000 of last year, will add appreciably both to the height of the debt and to the problem of sound governmental finance.

# DISTRIBUTION

Retail sales continue to look strong after hanging up a record in December and starting 1955 at a brisk pace. Consumer spending continues high and personal income is rising, giving a foundation for continued good retail business during the first two quarters. To get ready, many stores have been moving to increase inventories.

Expanding use of credit and further promotion of credit will contribute to maintaining and increasing the high level of sales. Increased competition and resulting lower prices will stimulate volume.

This is particularly true in the appliance lines where price competition is sharp.

#### FOREIGN TRADE

A proposed United Nations draft agreement on the international control of restrictive business practices will be taken up at the forthcoming session of the Economic and Social Council. The draft agreement is theoretically designed to eliminate and reduce cartel or trustlike practices which affect international trade and have harmful effects on the expansion of production or trade.

The United States Chamber of Commerce is among those opposing the agreement.

While not disputing the desirability of eliminating such practices, the Chamber charges that the draft agreement would not serve this purpose and would be discriminatory against countries believing in free enterprise.

Specifically, the Chamber charges that, under the draft agreement, the rules by which restrictive business practices are to be condemned are indefinite, there is no sufficient assurance that the rules will be enforced by disinterested and trained officials, or applied by an inde-

# AN AUTHORITATIVE REPORT BY THE STAFF OF THE CHAMBER OF COMMERCE OF THE UNITED STATES

#### AGRICULTURE

Farmers this year are expected to step up their use of commercial fertilizers over the 1954 level, which was the highest on record. Supplies are expected to be adequate to meet demand, and at prices generally unchanged from last year.

The program in which more than 20,000,000 acres have been diverted from basic crop production for 1955, is expected to involve some increased use of fertilizers as farmers try to step up yields.

There is evidence, however, that farmers are also increasing the use of fertilizers on crops not involved in the control programs. This may be marked in 1955 in the areas that have suffered greatly from drought, where an increase in hay and pastures is much needed. Outside these areas, however, farmers are increasingly turning to fertilizer use on hay and pasture and feed crops grown in rotation to build up fertility reserves and reduce production costs on succeeding crops.

A Department of Agriculture study shows that full fertilization would more than double production of such crops as corn, wheat, rye, oats and cotton in many areas. This, of course, takes no account of profitability.

# CONSTRUCTION

Regardless of action which Con-

gress may take on proposals to spend additional billions on highways over a ten-year period, highway construction will be sharply increased. The official estimate of \$4,200,000,000 for new highway construction for 1955 is 18 per cent above 1954.

Last year Congress authorized \$300,000,000 additional federal aid to highways in each of the next two fiscal years beginning July 1. As these increased authorizations take effect and the toll-road boom continues, actual expenditures may go considerably higher.

With heightening public interest in highway needs, there may well be an even greater increase in 1956.

#### CREDIT & FINANCE

State and local governments are said to face a growing financial stringency which forces them to rely more and more heavily on the federal government for assistance in meeting their obligations. Yet last year these units of government issued about \$7,000,000,000 worth of securities with which to finance worthy projects voted into being by their citizens.

At last year's elections this practice was continued. Hundreds of additional new projects were proposed and most, though not all, were approved—complete with authorizations for new bond issues.

Since 1946 state and local gov-

# BUSINESS? a look ahead

pendent judicial body, there is not sufficient assurance that the rules will apply with equal force to all members, and no system of international control can, at this stage, provide the necessary guarantees of

#### GOVERNMENT SPENDING

Whatever may happen to the budget, total military spending for supplies and equipment is on the increase. For the past couple of years the Armed Services have been using up excessive supply inventories and have cut down on their

This living off the shelf is about over. From here on expenditures for procurement may be expected to increase. This is particularly true of aircraft and related equipment. The proposed 1956 Air Force appropriation for these items shows an increase of about \$3,340,000,000 over 1955.

This upturn also gets an impetus from the critical situation in the Far East.

On top of this is the military foreign aid program. With another \$2,030,000,000 appropriation for this purpose proposed for 1956, expenditure items in this category may be expected to continue at or above present rates, unless Congress does some drastic cutting.

#### LABOR

The Attorney General's special committee studying the antitrust laws will report this month. Included in its studies were monopolistic and restrictive practices by unions, which, so long as they do not act in concert with employers. have been virtually free from prosecution under the antitrust laws since 1941.

The committee is expected to recommend legislation of some sort to cope with this type of union conduct.

The question is whether it should be done under the antitrust laws or under the Taft-Hartley Act.

Recommendations for legislation reportedly will not affect labor organizations in actions aimed toward legitimate objectives-but these legitimate objectives, it will be recommended, should not include, to mention some, exclusion of certain products and services from the market, the elimination of new processes and of technological improvements, price-fixing practices, geographical restrictions on an employer's business operations. or restrictions on production.

#### NATURAL RESOURCES

An inventory of all the federal government's real property holdings will be released this month. The Senate Committee on Appropriations of the Eighty-third Congress requested the inventory, which, if kept current, will provide Congress, the executive agencies, state and local governments, trade associations and others with up-todate information on all federal real property holdings. Work was done by the General Services Administra-

The summary report to be issued as a public document will include a series of tables, charts, and graphs, with a related narrative report. The data will cover all land, buildings, and other structures and facilities owned by the United States within our continental limits. It will include the public domain, lands reserved for national parks and forests, and all federal buildings and structures on land not owned by the United States. It will also include trust properties held by the federal government, the bulk of which are Indian trust lands.

The data will be broken down into costs, predominant use, and the method by which the property was acquired. Although all the data will be available to the Senate Committee on Appropriations, the public report will be sufficiently detailed to provide a comprehensive inventory of federal real properties by states and agencies.

#### TAXATION

The President's request for a oneyear extension of the 52 per cent tax rate on corporate income and the rates on alcoholic beverages, cigarets, gasoline, trucks, automobiles and their parts and accessories is causing much less disturbance than had been anticipated.

Congressional committees which will consider the request are serious-

ly pressed for time because of the April 1 expiration date. As a result they are holding closed sessions at which only representatives of the Treasury are to appear. Extension of the expiring rates seems assured.

Meanwhile, with the 1956 elections in mind, both parties are searching for proposals that will give them major credit for tax reduction and have the least revenue impact upon the Treasury. Proposals for fixed dollar amount tax credits or for splitting the lowest income bracket into several steps with commensurately reduced rates, are receiving sober consideration. But, even though such legislation may pass at this session, there is little possibility it will be made effective before January, 1956.

#### TRANSPORTATION

Rumblings of discontent over tollroad provisions of the President's proposed ten-year highway program promise to provide fuel for hot debate in hearings before Congress, probably to begin this month.

Highway user groups, while supporting the plan's broad provisions, are complaining about the toll-road features. The National Association of Motor Bus Operators, the American Trucking Associations, Inc., and the American Automobile Association oppose the proposed reimbursement to states for existing and future toll-road construction and permitted continuation of toll collections on such facilities. Users object that this will spur further expansion of toll roads.

Without such provisions it is generally believed that inauguration of the Administration's highway program would mean an end to growth of the toll network, a most undesirable outcome from the viewpoint of states favoring toll

financing.

The plan's principal financing feature is sure to be debated, too. This would provide a federal corporation to issue long-term bonds to aid in financing a \$25,000,000,000 reconstruction program for the 40,-000 mile Interstate Highway

Although the President's plan is receiving widespread support in its major objectives, it is by no means non-controversial.



Edward F. Phelps, Jr., directs the wage-price preparation for ODM

# BUSINESS TO GUIDE CONTROLS PLANNING

Office of Defense Mobilization will call on business to help plan sound wage and price controls to be ready if emergency comes

BUSINESS is being asked to help the government plan now for price, wage and other economic controls which might be needed in any future emergency. The purpose is to avoid the kind of improvised action that has occurred twice in a dozen years when control planning began only after an emergency had begun.

Today's effort is a project of the Office of Defense Mobilization, and will continue whether or not Congress is asked to enact laws creating standby emergency wage-price legislation. President Eisenhower recently indicated that he will not ask for such stand-by authority because he feels that Congress could pass any necessary legislation rapidly enough. Given time for completion, the ODM study will provide guides as to the form this legislation could take.

To direct this project, ODM Director Arthur S. Flemming has brought back to Washington a stabilization expert who was with the Office of Price Administration in World War II and was assistant director in charge of all price operations in the Office of Price

Stabilization during the period of the Korean war.

He is Edward F. Phelps, Jr., a former food industry executive, of West Hartford, Conn. He brings to his assignment some definite ideas which he explained to NATION'S BUSINESS in an exclusive interview.

# Why are you here at ODM and why is this study going on now?

I'm here because Mr. Flemming asked me to make available my experience in this unpleasant field—an area of governmental operations which any sensible person hopes will never again be needed.

Nevertheless, during this period of relative peace, it seems to make sense that we examine the policies, standards and techniques used in the two recent periods of stabilization and decide what, if anything, should be kept and what should be abandoned or modified. In this way, we'll be attempting to profit by experience and, although we certainly can't eliminate controversy in this field, we can try to minimize it. Ideally, we'll be trying to create more understanding of the problem

in time of peace, searching for fresh viewpoints and better methods on the assumption a responsible government may have to use them, and seeking to avoid spur-of-themoment, expedient solutions in case an emergency arises.

Even more basic, we have a chance to consider more clearly, and perhaps with somewhat less emotion, the extent to which in time of war the government should—or effectively can—interfere with the normal workings of our kind of enterprise system and economy.

Will this eliminate defects such as those which caused complaints about previous stabilization programs?

You couldn't possibly hope to eliminate all defects or complaints from even the most ideal emergency stabilization program. This country's economy is so complex and involves so many interests that any set of ground rules or methods must represent some kind of compromise. On top of that, our form of government inherently supports political activity in this area, so that the standards and ground rules you start out with are often subject to political attention or adjustment as the emergency progresses. However, recognizing that we live in the kind of world which could force emergency stabilization measures upon our government, it ought to be possible to reduce some of the defects and the complaints through thoughtful preparedness work.

How is your planning here related to President Eisenhower's request for extension of the Defense Production Act and talk of authority for stand-by emergency controls?

On behalf of the President, ODM's job is to make plans, or coordinate the planning of other agencies, in the whole mobilization preparedness field. Therefore, as plans are developed and approved by the President, they will presumably be advanced to the Congress in the form of proposed enabling legislation where it is needed-and the Defense Production Act is one part of that legislative background. However, talk of stand-by stabilization legislation is wholly unrelated to the Formosa situation or to the long-term preparedness work which I believe must be carried on. In a recent press conference, the Presi-dent indicated he could live with such legislation if Congress passed it but that it would involve both advantages and disadvantages-and he did not regard it as among the most important pieces of legislation. In any event, this wouldn't affect the

#### How other firms are improving business with pictures



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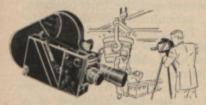
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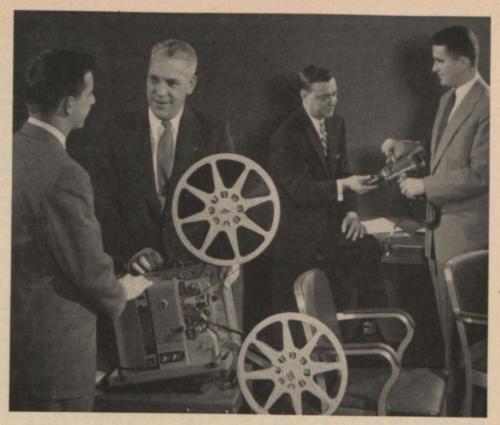


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long-range study of the nature of controls and of legislation in case of atomic attack or in a more orthodox mobilization period; or of the basic concepts and objectives of an economic stabilization program in varying mobilization situations.

#### How do these preparations differ?

The major question, in case of atomic attack, is whether and to what extent economic stabilization operations make any sense at all. It's obvious that survival measures would have to take priority, probably initiated by local civil and military people. However, after the initial shock and first survival steps, these individuals might conceivably need suggestions for a few simple and basic rules of economic behavior in a disaster situation requiring the gradual restoration of community life and order. The federal government's role might be to have available in advance a package of such simple rules and suggestions. I've recommended that ODM and other government agencies explore the possibilities of developing such a kit, recognizing that the possibilities of attack on this country pose entirely new economic problems. I would hope the knowhow and facilities of agencies like Treasury, the Federal Reserve and Civil Defense could be enlistedand I know some effective work has been done on part of this problem.

# What about stabilization in a more orthodox emergency mobilization period?

Planning for such a period necessarily involves a whole structure of controls, both direct and indirect. These should supplement each other in any all-out mobilization situation. Also, they are varied according to the kind of situation that exists or threatens. They include the government's tax and monetary policies; credit, price, wage and rent stabilization—and rationing.

# Are both direct and indirect controls necessary?

Many people feel that taxes, credit control, monetary policythe so-called "indirect" controlsshould be relied on entirely or more heavily than in the past. Others argue it is just as well that these be supplemented or supported by "direct" controls on prices, wages, and rent, as well as by rationing. In an all-out mobilization lasting for any considerable time, there is little doubt that all these methods would have to be used. The advantage of planning now, in peace, is that we may have time to achieve more understanding of the limitations, advantages and interdependence of these measures, and to work out the most effective means of using them if they must be used.

#### What about selective controls?

In my opinion, selective controls those that deal with particular commodities, industries or parts of the economy-cannot be applied in this country for any long period, particularly when our economy is operating at such high levels and when you recall how its parts are related. The use of one form of control or of limited control may cause distortion and generally breeds the use of other controlsan argument critics use against any form of control-and selective controls can also be attacked as discriminatory. Like so many other discussions, however, this one supports varying views.

#### How about a blanket wage and price freeze and then a gradual thawing out, as happened before?

If the emergency situation would obviously disrupt the economy on a wide scale, or impede a large-scale mobilization effort, then about the only way to get started is to impose a general freeze. Thereafter, it's the ground rules followed in administering the necessary "thawing out" that cause most of the controversy.

# Would wage and price controls be tied together?

Even though prices and wages are so closely related, price and wage control actions should be kept separate. Ideally, prices should be stabilized or adjusted according to the government's announced price policy-without reference to the impact on wage stabilization. In turn, wage rates should be stabilized or adjusted according to stated wage policies without regard to the impact on prices or price stabilization. In this way you would seek to avoid, so far as possible, any bargaining over, or balancing of price and wage stabilization actions on a horse-trading basis. However, any veteran in this field will recognize that this would indeed be ideal. Incidentally, it is the possible development of these basic policies, or rules of relative equity for various segments of our economy, which seem to me among the most important aspects of possible preparedness work.

#### Would profits be controlled?

Only to the extent Congress and the executive branch decided that such kinds of profit control as special taxes, renegotiation and similar measures are relevant and proper during war or mobilization. Price control standards should not have, as one of their basic purposes, the specific control of profits, although there is no avoiding the fact that an effective price stabilization program over an extended period might inherently limit profits in varying degrees and in varying industries as well. Any control period, brought into being by a national emergency, could not avoid setting up some conflicts with the need and desire of our kind of enterprise system to earn acceptable profits. A major preparedness problem on the price side is to minimize those conflicts and avoid extremes -that is, to undertake necessary price stabilization in time of war but not through the use of pricing standards which would prevent reasonable or necessary earnings.

#### Would any legislation be needed to carry out recommendations that might result from the stabilization preparedness work?

Many aspects of economic stabilization would require legislative authority. I think it would be six months or a year before any comprehensive legislation could result, assuming the necessary competence can be brought to bear on the job.

# At what point will industry, business, agriculture and labor have a chance to evaluate your recommendations?

From the beginning. We hope to employ as consultants two or three qualified people in each of the broad areas of policy and controversy. They would then bring together working groups from other government agencies, from business, labor, agriculture and the professions. These groups would examine, investigate, and discuss these questions of basic stabilization policy in varying mobilization situations.

We hope also to have a sort of board of directors composed of a limited number of highly competent and well known people—not more than eight or nine. This group would advise with respect to the continuing stabilization planning and coordinating work ODM must do and would generally oversee and help plan the continuing attack on the problem.

If accepted, any recommendations and conclusions reached might then become the basis for future legislative proposals. In turn, they would also provide the basis for business, labor and other experts to serve on advisory groups to help build the stand-by regulatory structure which would be needed to

(Continued on page 53)

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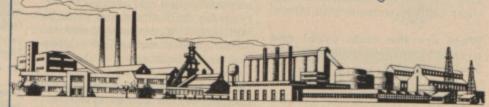
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25TH ANNIVERSARY YEAR

### What Russia Will Do Next

(Continued from page 29) or in Siberia, the people have become sensitive observers and evaluators of other persons. Friends, associates, colleagues—all are given a careful appraisal and size-up in order to assess the risk in such contacts and associations. The network of regime informers is reportedly large, and interestingly replenished by petty thieves, prostitutes and criminals who, in exchange for their freedom from jail sentences, must become "neighborhood spies" for the regime.

Additionally, the "block system," which holds each member of a group responsible for the actions of all the other members of his group, helps to keep the average citizen extremely chary of close contacts with others.

# What are the main social and psychological weaknesses of the Soviet system?

The system is vulnerable:

To an increase in the people's correct knowledge of the outside world.

To situations where the reachable elite, especially the military elite, feel a conflict between patriotism and their loyalty to the regime in power.

To actions by the United States, whether of an economic, military or psychological warfare nature, which are unexpected by the Soviet leadership, and hence disturbing to their confidence that their calculations about us are sound.

To clogging of the decision-making process at higher levels.

To the risk that a purge campaign initiated at the top may become a run-away affair like that of the mid-1930's.

To exposure of weak links or inconsistencies in its ideological armor.

To substantial increases in the discontent in the Soviet population, and perhaps even more to abrupt alterations in the tightening and relaxing of pressures upon the people.

# How does the regime maintain stability?

The stability depends upon elaborate machinery for reporting and suppressing deviant behavior. This machinery includes the secret police, informer networks, Communist Party snoopers, government inspectors, and the like.

# Do the people get away with anything in the Soviet system?

Yes—to the extent that the regime feels that such actions contribute to the success of programs! Since much of the citizen's extralegal activity is actually necessary to the functioning of the system, no institutions are run completely according to the book, and an unstable balance is worked out between the application and evasion of the means of control.

# How does the average citizen get along in the Soviet system?

The rank-and-file citizen learns to apply complicated techniques of accommodation and evasion to carry on his daily affairs and to maintain himself in reasonably successful or at least untroubled adaptation to the regime.

# Do the people resent the Soviet leaders or the Soviet system?

Their hostility is toward the regime—the actual people in power—rather than toward the system. Even those who are violently anti-Soviet favor state ownership of means of production, and other institutional features which are associated with socialism.

# What general features of Soviet life are most intensely resented by the people?

The low standard of living, the excessive pace of everyday life and the threat of arbitrary political repression.

# What organizational feature of the Soviet system is most hated?

The collective farm system. The Project interviews contained strikingly little complaint about the factory system other than dislike of harsh labor discipline laws. For example, repeated tardiness means a prison sentence.

# Millions of people have been arrested by the secret police at one time or another. How has this affected their attitudes?

Being arrested has little effect on a person's general social and political attitudes and values. The individual does not generalize his experience to the point of revising his judgment concerning the kind of society in which he lives. Arrest, however, does increase his hostility to the regime.

Furthermore, arrest—whether his own or that of a family member—makes him anxious about his own future, and thereby increases the probability of his leaving the Soviet Union voluntarily if the opportunity arises.

# Does discontentment cause the individual to put less effort into his job?

The degree of dissatisfaction with, or even disaffection from, the system does not necessarily detract from the energy with which a person does the job assigned to him. The disaffected person often does his job well, and in fact may work with a little extra energy, either because he feels he has to prove himself or because he finds comfort in his work. The fact that the Soviet system tends to produce dissatisfaction in its citizens does not in itself mean that it gets less effective work from them.

### THE PEOPLE SPEAK

Types of criticism permitted in the Soviet press (mainly in the form of letters to the editor):

The Palace of Culture of the Novo-Tagil Metallurgical Plant has "dressing rooms so small that it is impossible for an actor to put on his make-up."

The Teacher's Gazette, the official journal of Soviet teaching, published this criticism of Comrade Komarova, a geography teacher in the 264th school in Moscow: "In discussing Rome, the capital of Italy, he never mentioned a word about the reactionary role of the Vatican!"

The Turkmen Iskra of August 20, 1954, published this criticism in its letters to the editor column: "At the Vorovsky rest home (a health-vacation resort for workers), it was announced that the hot showerbath was working. This was a great event for the guests. However, it was impossible to take a bath since the water came up to one's knees in the shower-room."

# On what does the stability of the Soviet system rest?

The stability of the Soviet system involves a nice balance between the regime's powers of coercion and the adjustive habits of the Soviet citizenry. The stability of the system and of the people's loyalty depends to a high degree on the citizen's own belief in the stability of



that system and on his having no alternative but to adjust.

# Are the non-Russian nationalities in the USSR the most dissatisfied?

Not at all. People in the same social group, peasants, workers, employes, intelligentsia, hold essentially the same attitudes and values regardless of nationality. The nationality element is sometimes strong, but more often it is latent and seems to be only a secondary contributing cause to disaffection.

# What did the Project find out about the peasantry which constitutes about 55 per cent of the Soviet labor force?

The peasantry is the outstandingly disaffected group in the population. Further, the peasants' hatred of the institutional form of the collective farm is generally shared by all social groups. The collective farm is revealed as the most whole-heartedly opposed of all Soviet economic and social institutions.

#### How does the regime indoctrinate Soviet youth to be good communists?

Mainly through state-controlled education and also through the ubiquitous communist organizations for youth: the Octobrists for ages 8-11, the Pioneers for ages 10-15, and the *Komsomol*—Communist Youth League—for ages 15-23.

# Are Soviet young people likely to become disaffected as they mature?

No. Although there is a period of crisis, when the individual reaches maturity, in the relationship of youth to the regime, only a small minority actually turn against the system because of disillusionment. In most instances, they are able to reconcile the conflict in their feelings toward the regime. The younger generation is coming to accept as natural many aspects of Soviet life and the Soviet system that the older generation rebelled against.

# How aware of the outside world are the Soviet people?

Ignorance and distorted views of the outside world are deeper and more widespread—even among the intelligentsia—than heretofore had been realized.

# How does the regime control the radio programs heard by the Soviet people?

In several ways. Some foreign programs are jammed to prevent their being heard. In addition the radio system is almost completely (80 per cent) based on wired speakers. These are speakers wired to a central control station in the city instead of individual tube or aerial sets. The regime has been largely successful in keeping foreign broadcasts from reaching the population and in putting into the communications network its own propaganda.

#### How classless is Russia's classless society?

Anything but! Soviet society is highly stratified into classes somewhat similar to those in western industrial society. In theory, the class system is open—a person can rise from one class to a higher—and such movement has actually been extensive. However, certain avenues are blocked for those of bourgeois family background and for many others whose close relatives have been proscribed as enemies of the state.

# How have the Soviet people fared at the hands of their rulers?

Supported by their belief or claim that they are executing the will of history, the regime has been ruthless in handling people. Little is thought of enormous physical suffering, and even loss of life if, by these means, appropriate goals are felt to be advanced. Only when bad morale is believed to affect production or even to raise the threat of disorders does the regime relax the pressures. This indifference adds to the flexibility of the regime's pursuit of short-term goals.

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#### What features of Soviet leadership receive widespread approval?

The people like the purposefulness, the activism, and the steady looking to the future.

# Have the Soviet leaders developed among the elite a considerable proportion of people of an externally disciplined and driving character?

To a certain degree, this has been done. However, even in this group the underlying personality of these people often seems to continue to conform to the traditional Russian characteristics familiar in literary and historical sources:

Violent psychological ups and downs. hoarding supplies; padding estimates; concealing reserves; underreporting output.

These activities are actually advantageous for the system, helping to keep it from bogging down in its own red tape. The research has provided a strong realization of the importance of informal mechanisms in the operation of a society that on the surface appears and pretends to be highly centralized, controlled, and rationalized.

#### Does the regime tolerate independent clubs, labor unions, fraternal organizations?

No. However, "localism"—which is the tendency for local loyalties to develop and for local interests to be advanced over those of the regime—has a more important status To conform, at least outwardly, is necessary for survival. But the regime wants more than

But the regime wants more than conformity; it wants not so much belief, in the sense in which Christians would use that term, as active support of the Party as the trustworthy custodian of all the fundamental doctrinal questions. The individual can so comply by actively propagating and carrying out the Party program and its concrete demands.

#### What is the significance of ideology in the Soviet regime?

Enormous stress is put on ideology both as a doctrine and as a practical instrument. The operating ideology of the leadership at any given point in time is kept remarkably consistent. The more formal total theoretical system has, in fact, undergone change through time, but much effort is expended to rationalize these changes and preserve the appearance of continuity and consistency. There is good evidence that communist ideology affects the thinking and the acts of leaders and of other intelligentsia who grew up under the Bolshevik regime.

# Do the Soviet leaders carry on a constant battle against opposition elements?

Yes. Both because of their addiction to rational planning and because of their conviction that "everyone who is not completely for us is against us," the ruling elite have made great efforts to stamp out growing centers of independent power and communication in the Soviet system. Their success, however, is incomplete.

# Is the Soviet terrorization of the people an integral part of the system?

Yes. Terror and forced labor are well known communist instruments of power. They are primarily goalachieving tools, rather than sadistic methods, as in the Nazi case. The motivation behind their use is dominantly political—that is, eliminating opposition to the regime, through economic utility, as sending prisoners to work the uranium mines—is exploited.

# What is the regime's attitude toward the little piece of private land allowed the peasant?

As a sop to the serious resistance to forced collectivization, the Collective Farm Statutes of 1935 allowed each farm household a private plot varying in size from two thirds to one and one fifth acres. The regime has tried to whittle



Need for warm personal relations and for a firm place in the group. Unwillingness to compromise.

Passive resistance, only occasionally marked by violent outbursts, to strong and arbitrary authority.

Vitality and spontaneity alternating with melancholy and apathy.

Mixed attitudes toward foreigners. These are traits which continue to characterize the personality of the rank-and-file Russian.

# How do informal adjustive mechanisms contribute to the operation of the Soviet system?

These are the many evasive, quasi-legal or illegal actions of Soviet citizens which are most criticized in the official press and generally regarded by western observers as signs of weakness. They include: "scroungers"; "five percenters"; "the *Tolkach*" (a supply expediter); blat (the reciprocation of favors and the use of personal influence to obtain illegal advantages); the "web of mutual support" (collusion between manufacturers and government inspectors); simulation of required output;

in the Soviet scene than it had been accorded heretofore.

# How do the people feel toward their native land?

The depth of their loyalty to the Motherland is an outstanding sentiment in all classes irrespective of religion, political attitudes, and of personality structure. This is coupled with a genuine fear of foreign aggression. These sentiments are strongest in the heartland, but prevail pretty generally.

#### Does Soviet propaganda demand more than conformity from the people?

Yes. The Soviet propaganda machine does not limit itself, as most other systems of political propaganda have done, to the technique of reiteration, hammering in, and to the suppression of complaints and disturbing information. It insists upon positive action from the people. It is true that incessant profession of faith is the prerequisite not only of personal security but also of advancement at school, in work, and in every sphere of life.

down these private holdings, partly to free more labor for communal work, partly to increase the peasant's dependence upon the proceeds from the collective farm to which he belongs. The leaders have a still more fundamental distrust of private agriculture because, in Lenin's words:

"Peasant small-scale production breeds capitalism and a bourgeoisie —every day, every hour—by a natural process and on a mass scale."

Collective farms take up 85 per cent of all agricultural land in the USSR, and another nine per cent is organized into state farms.

#### Is the agricultural system currently in crisis?

Yes. According to the Russian leaders themselves, during the period 1940-1953 when the population of the USSR increased by 15,000,000, there was a total decline in grain acreage of 3.5 per cent of the prewar average.

Food production is the lowest and the average Soviet diet the smallest and poorest since the First Five-Year Plan came into force in

The numbers of beef and dairy cattle in 1953 were less than the total in 1916.

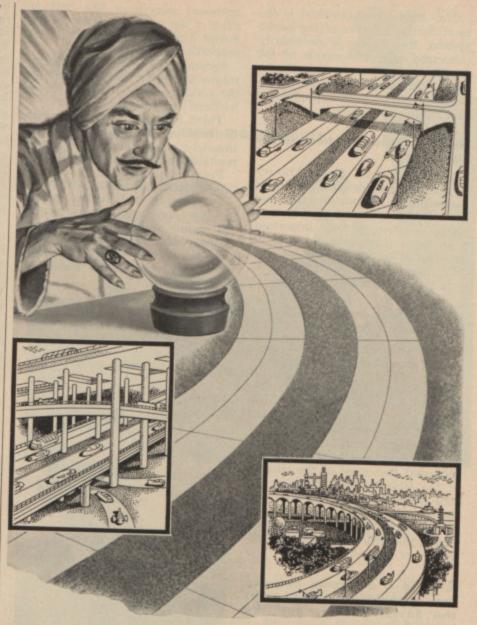
# What are some of the central and repetitive patterns of behavior of the Soviet regime?

Overcontrol, overconcentration, and overcommitment. As to overcommitment of resources, the leaders tend to undertake a massive



program in such a way that every conceivable resource, including critical reserves, must be totally involved. Alternative policies, however, are more nearly ready for implementation than would appear on the surface.

Can the Soviet regime completely disregard the wishes and welfare of the people?



# TOMORROW'S ROADS

# ... what will they be like?

Road building and maintenance nearly stopped in depression and war years, but the search for safer, more durable and economical pavement went right on. The Portland Cement Association has played a major role.

One project consists of roads built more than ten years ago with different cements and concrete mixtures as part of the highway systems of New York, Missouri and South Carolina. Purpose: to test weathering effects in various climates. Already this field experiment has shown conclusively that air-entrained concrete (containing billions of tiny air cells) eliminates damage caused by freeze-thaw cycles and chemicals used to melt snow and ice. Result: a safer, longer-lasting, lower-annual-cost pavement.

Developments like this from PCA's continuing field and laboratory work help make tomorrow's roads a benefit to all Americans, who pay for them with license fees, gas and other taxes on private and commercial vehicles.

# PORTLAND CEMENT ASSOCIATION

33 W. Grand Ave. § A national organization to improve and extend the uses of portland cement Chicago 10, III. } and concrete through scientific research and engineering field work

## RUSSIA continued

No. Since the individual is the most flexible resource of the Soviet system, the regime is necessarily concerned with the morale of the population—not as an objective in itself, but as an unavoidable prerequisite to economic production and military readiness.

# How does one get ahead in the USSR?

A citizen's social class and his occupation largely determine both his opportunities for advancement and his attitudes toward the system. Social position is more important than such factors as nationality or previous arrest in affecting his hostility toward, passive acceptance of, or active support of the regime.

# Is discontent in the USSR the same as disloyalty?

No. Although there is a great deal of popular dissatisfaction, there is only a relatively small amount of disaffection and disloyalty. Soviet escapees and DP's left little doubt about the extent to which most of them were unhappy about many aspects of their lives in the USSR. But these same interviews indicated that most of the citizens of the USSR feel helpless in the face of the power of the state and desire only to live peacefully-to keep out of trouble, to do nothing that would bring them to the attention of the secret police.

#### Is there a difference between the psychological make-up of the Soviet leaders and the people?

Psychologically, there continues to be a great gap between the Soviet masses and the elite. The masses remain rather close to the traditional literary picture of Russian character. They are warmhearted, impulsive, given to mood swings and contradictory in behavior. The goal—and to some extent the attainment—of the elite is the rather puritanical "new Soviet man": disciplined, working steadily and consistently, subordinating personal conduct and motivation to the requirements of Party discipline.

# What evaluation did the Project make of the nationalities problem?

Nationality feeling undoubtedly still exists and is of genuine importance in a number of groups within the USSR—Ukrainians, Byelorussians, Georgians, Armenians, the Moslem peoples, and so on. However, while ethnic minorities represent something like half or more of the total population of the Soviet Union, their power is not proportionately great.

Second, the minorities by no means present a united front; on the contrary, they have their own frictions and jealousies.

Third, individuals from the minor nationalities occupy a disproportionately small number of power positions in the total system.

Fourth, the minorities are being rather rapidly Russified.

In general, nationality groups feel the same resentments toward the regime and the same dissatisfactions with the system as other citizens of the USSR, although they may feel them somewhat more intensely.

# Do the intelligentsia of the USSR enjoy a favored position?

Yes, even though they are subject to closer surveillance than are rank-and-file citizens. They run



greater risks of punishment and more extreme demands are put upon them. Yet they are also the favored beneficiaries of the system.

# Which class fares worst of all under the Soviet system?

The peasants.

#### What can the regime do to enhance its position among the people?

Leaders of the present regime can gain very solid popular support if they supply more consumer goods and better housing, ease up on the terror, make some concessions to the peasant, and somewhat relieve the frantic pace at which all the population has been driven.

# What is the present situation of the military clique in the USSR?

The military is a key group. The relative prestige and power of mili-

tary leaders have notably increased-and is further enhanced by Bulganin's accession to premier. They have greater capabilities for independent action than do any other group in the Soviet Union, save the Communist Party. Military leaders, on the whole, have had a little more experience with the West and tend to have a more realistic estimate of its power. They are more trusted by peoples of the Soviet Union than any other power echelon. While virtually all officers above the grade of captain are members of the Party or Komsomol, it is likely that patriotism will prevail over the regime or ideological commitment among most senior officers in a crisis situation.

# What is the greatest weakness of the Soviet system?

The fact that the Soviet system violates so many interests of its citizens in achieving state goals that the regime cannot rely on their loyalty.

#### What is the chance that a revolution will wreck the Soviet system?

There is little likelihood that the Soviet dictatorship will crumble from its own faulty structure within the immediately foreseeable future. Nor do we anticipate an internal revolution other than possibly, a change in the personnel of the ruling clique.

# What are the chronic failures of the Soviet system?

The prolonged depression of the standard of living; the unrelenting pace of industrialization; the continued unchanged operation of the despised collective farm system; and the ever present threat of terror.

# Did this study cover attitudes and conditions in satellite countries?

No, the Harvard Project was confined to the USSR, and in particular, to three aspects of national life in the Soviet Union: the day-to-day life of the people; the structure and functioning of basic Soviet institutions (family, education, industrial system, political life, communication system, popular behavior, professional life, etc.); and the interaction of Soviet people and Soviet institutions.

#### How seriously do the Soviet leaders take communist doctrine?

The communist ruling elite take ideology and indeed philosophy seriously to a degree that is difficult for a mid-twentieth century westerner to comprehend. Soviet newspapers and journals contain a great deal on these abstract subjects. These widely publicized utterances of the leaders also, of course, are calculated to symbolize the extent to which the leadership is involved in and concerned about every aspect of Soviet life.

#### Why is cyclical behavior one of the most distinctive operating characteristics of the Soviet system?

The long-range goals of the leadership are highly stable. From a shorter-term point of view, there have been enough sudden alternations between rigidity and flexibility and between two drastically contrasting courses of policy and action, to warrant designating cyclical behavior a distinctive operating characteristic of the system. This is well illustrated by recent stress on consumer goods and then the abrupt repudiation of this program.

#### In view of widespread dissatisfactions among the people, what accounts for their loyalty to the system?

The loyalty (in practice) of most of the population of the USSR arises primarily from belief in the stability of the system and the conviction that one has no alternative but to adjust.

# **Business To Guide Controls Planning**

(Continued from page 46) carry out the proposed emergency stabilization operations.

# Do you think this preparedness work can actually be successful?

I don't know. If we can get wider recognition of the fact that the government probably cannot avoid being drawn into this field in case of real emergency—if we can achieve an increased understanding of the problems and limitations—and if we have enough interest, patience and forebearance—then I would be inclined to feel useful work could be carried on. Otherwise, I presume this country would do whatever might seem appropriate or expedient if an emergency did arise.

I suggest, however, that no responsible government could do nothing—therefore, it might well pay to give the subject thoughtful attention even though we hope it will not become relevant.



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# JET AGE METAL -

MINIMUM needs for our national stockpile of cobalt have been met and gains have been made toward longterm objectives for a substantial reserve of this strategic metal.

That's the word from the Office of Defense Mobilization which is charged with the responsibility of insuring ample materials for our defense effort. How much cobalt we have or how much we may need in the future is classified information.

However, a study of records at the Bureau of Mines shows that in the period 1949 through 1953 the U.S. produced 4,855,788 pounds of cobalt, while importing 59,159,000 pounds and consuming 44,485,-319 pounds.

These figures indicate that we have, at a minimum, some 20,000,000 pounds of this vital metal on hand. At its current price of \$2.60 per pound, this minimum stockpile represents an investment of \$52,000,000.

How much cobalt we may need in the future involves considerable speculation, depending chiefly upon how hot a cold war may become. The amount has been described, unofficially, as enormous-perhaps ten to 20 times as much as we have in stock.

Says an ODM official: "We have greatly strengthened our defense position with regard to cobalt during the past two years. Our present inventory, together with contracts to receive additional metal this year and next, exceeds our minimum objective.

"Nevertheless, there is an indicated wartime deficit of cobalt because we depend so largely upon imports. For that reason we are continuing to contract for deliveries to the long-term stockpile.'

While the use of cobalt is at present unrestricted and unallocated, domestic producers sell first to the stockpile, second to defense facilities, third to industrial users generally.

This brief analysis of the present position of cobalt

suggests more questions:

What is cobalt? Why is it important to national security? Why are we stockpiling it? Where does it come from? What are we doing to increase domestic production? Where do we use it in commerce and industry? Is there—or can there be—a cobalt bomb?

Cobalt, a tough, lustrous, bluish-silver metal, is used principally in high temperature alloys. Without these alloys jet engines could not long withstand the terrific heat of supersonic flight.

A single turbo-jet engine contains some 30 pounds of cobalt, chiefly in nozzle guide vanes and turbine wheel blades, the latter rotating at speeds as high as 10,000 revolutions a minute. The pinch of cobalt represents a minute fraction of the engine's weight, but without it the plane would be virtually useless.

Nickel, chromium, tungsten and molybdenum, among others, also are used in these alloys but cobalt, which melts at 2,696 degrees Fahrenheit, is the basic seasoning of high heat metals. Except for cobalt it is probable that most of our jet engines, rockets and guided missiles would still be dreams.

Our consumption of cobalt for use in high tempera-

ture alloys increased from 526,504 pounds in 1946 to 928,528 pounds in 1949; 4,899,591 pounds in 1951; 6,414,352 pounds in 1952. In 1953, after the Korean war ended, such consumption dipped to about 5,230,-000 pounds.

At least half of our cobalt consumption goes into high temperature alloys. Other uses of cobalt helped increase total consumption of the metal from 4.105,-027 pounds in 1946 to 10,748,499 pounds in 1953.

The President's Materials Policy Commission has estimated that, by 1975, consumption of cobalt in the United States will have increased about 344 per cent over that of 1950. With the sole exception of magnesium, this is the largest increase predicted in the metals field. There is little question that high heat alloys will account for a large part of this increasecertainly if we continue to demand greater speeds from our military aircraft, guided missiles and rockets.

One of the earliest uses of cobalt, and still a major market for the metal, was in the manufacture of wearresistant alloys, technically known as stellites. These alloys also contain chromium and tungsten and are used in the teeth of power shovels, in drill sharpening dies, discs for oil pipeline valves, pump shafts and other parts of machinery normally subject to rapid

We used more than 600,000 pounds of cobalt in the manufacture of stellites in 1953, and are expected to double that amount within the next five years.

Permanent magnet alloys utilizing cobalt, aluminum, nickel, iron and some copper, are the most powerful ever made and find a wide range of industrial and commercial uses. Perhaps one of the most important uses for large permanent magnets during the past year-and increasingly in the future -is for speedier separation of iron ore from dross in reclaiming iron from low-grade taconite deposits.

United States consumption of cobalt for use in making magnets came to slightly more than 1,000,000 pounds in 1949. Currently we're using nearly 2,500,-

000 pounds.

Use of cobalt in high speed steels shows a slight decline over the years—some 283,000 pounds being used in 1949 as against 218,000 in 1953. The development of lower cost substitutes accounts for this decline, although cobalt still is a must where "hot work" is done at temperatures exceeding 400 degrees Fahrenheit.

Cobalt finds an increasingly important place as a cement or binder with tungsten, molybdenum and tantalum carbides. The resulting alloy increases the hardness and durability of mining drill bits, high speed cutting tools, lathe and grinder centers, drawing dies, valve balls and other industrial equipment and machinery.

In 1949, we used about 118,000 pounds of cobalt in cemented carbides.

This figure rose to 610,000 pounds in 1952, then declined with the end of the Korean war.

# we're boosting COBALT output

The nonmetallic uses of cobalt include ceramics, porcelain enamels, pigments in paints, lacquers, varnishes, inks, glazes, ground-coat frit, driers, electroplated objects, animal feeds and soil conditioners. The U.S. consumed some 1,500,000 pounds of cobalt in these ways in 1953. While the value of cobalt in animal nutrition has not been precisely established, it is known that cattle benefit from small additions of the metal or one of its salts to the soil in Florida, some of our western states and in Australia and New Zealand. Cobalt salts, too, make your Bromo Seltzer bottle (and others like it) blue. Cobalt is the principal ingredient that makes paints and enamels—and the ink on your newspaper-dry quickly.

Not a great deal is known of the possibilities of radioactive cobalt, or Cobalteo, but dark hints have been circulated concerning its enormous potential in a bomb. One expert cobalt metallurgist explains that a single cobalt bomb not only could destroy the city of New York, but would render it uninhabitable, and

even unapproachable, for nearly 11 years.

He says, soberly: "Even though we produce cobalt,

we wouldn't want to see it used for that."

On the plus side, radioisotope Cobalt<sup>60</sup> finds an increasingly important use in the field of industrial radiography and in the war against cancer. In the case of industrial radiography, the isotope is placed on one side of the material to be tested, such as a weld, forging, casting, etc., and photographic film is placed on the other side. Flaws permit more radiation to penetrate the materials being checked and cause greater film exposure. Use of a like amount of radium in this process would cost approximately \$10,300. The Cobalt<sup>60</sup> costs about \$600.

In the case of Cobalt<sup>60</sup> used in treating cancer, the radiation source consists of a small cylinder of metal about one fourth inch high and one inch in diameter. This metal is exposed to the radiations of an atomic pile for a year or longer and the radioactive isotope results. The isotope then is placed in a beam therapy unit which is surrounded by more than a ton of lead to control radiation emitted in all directions.

In view of the strategic importance of this littleknown element and our almost total dependence upon imports, what are we doing to encourage domestic

production?

Almost 85 per cent of the world's cobalt comes from the Belgian Congo, where the Union Miniere du Haut Katanga is the sole producer, and is the major factor in the establishment of a world price for the metal.

From the mines of the same company, at Shinkolobwe, early in the last decade, came the uranium ore that went into the production of the atom bombs

which fell on Hiroshima and Nagasaki.

In the United States, the Calera Mining Company, a wholly owned subsidiary of Howe Sound Company, is currently exploiting the largest known deposit of cobalt-containing ore on the North American continent. Howe Sound is, by a wide margin, the biggest domestic producer of cobalt. Other important producers are the National Lead Company and Bethlehem Steel.

A new metallurgical technique, developed for Howe Sound and National Lead by a subsidiary company of American Cyanamid, promises to treble U. S. production of cobalt within two years. Two plants for development of this technical process are undergoing test runs now.

It is hoped that full production can be reached by the end of next year, perhaps sooner. The United States should produce at least 4,000,000 pounds in 1956. Present annual production is approximately 1,775,000 pounds. Howe Sound Company, from its Calera mine deep in the Salmon National Forest in Idaho, currently produces about 1,500,000 pounds, and expects to reach 3,300,000 pounds by the beginning of 1956.

H. A. Pearse, vice president of Howe Sound, looks

to the future this way:

"We have, everywhere in this hemisphere, a lowgrade ore as compared with the Congo. It runs about one half to three quarters of one per cent cobalt, where in the Congo it runs as high as 18 or 20 per

"That means, in rough terms, we get from ten to 14 pounds of pure cobalt metal from a ton of ore. Our concentrating plants boost that to about 17 per cent, but the rest is mostly waste.

"Add to this the fact that we have high operating costs, including necessary equipment and labor, and it's not hard to see that if we want high domestic production of cobalt, we need all the encouragement and

help we can get.

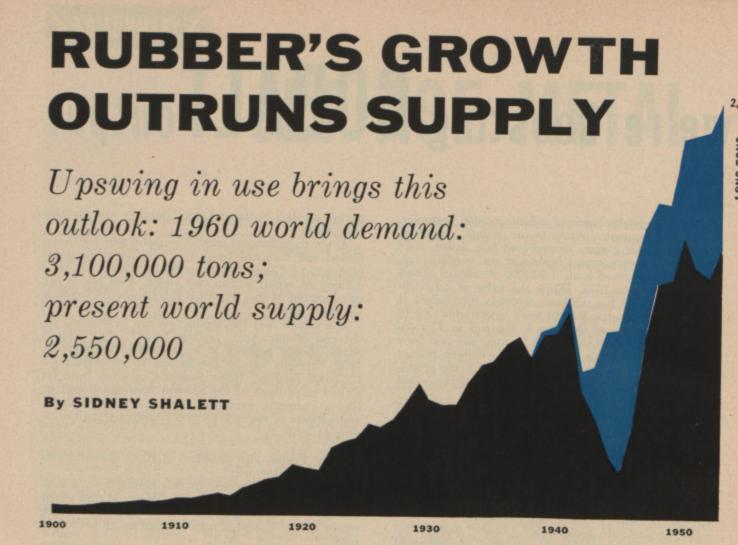
There's a good future for cobalt production in this country, but it's really just getting on its feet. The new process of refining and concentrating has great promise. It's much simpler than electrolytic and other methods, but we're in a position now of having to prove its economy and efficiency. I'm sure we will."

Backing up Mr. Pearse's optimism is Howe Sound's new \$3,000,000 refining plant at Garfield. The company, Mr. Pearse explains, is not in the broadcasting or recording business, as its name might imply. Howe Sound, like Long Island Sound, refers to a body of water-in this case Howe Sound in British Columbia, where the company discovered and worked its first gold mine.

For many current and future industrial and defense uses there is no substitute for cobalt, regardless of cost. We are at present dependent upon foreign sources—the Belgian Congo, Northern Rhodesia, French Morocco and Canada—for our needs.

It is perhaps worth noting that one of Russia's principal objectives in its half-forgotten war with Finland back in the 30's was the Petsamo area, now a part of Russia.

This area contains the only known cobalt deposits in eastern Europe.—Donald C. Spaulding



WITH THE government about to turn over to private industry its synthetic rubber plants-unless Congress unexpectedly intervenes the rubber industry in the United States is poised for a breathtaking expansion.

Fifty years ago, rubber was an infant on the American industrial scene, a mere dabbler in articles of limited usage. It even tinkered with manufacture of such dubious items as pneumatic tires for those newfangled horseless carriages which were beginning to constitute a hilarious nuisance on the nation's roads. The average U.S. citizen consumed only one pound of rubber a year.

Today, each citizen uses an average of 19 pounds of rubber products a year, making rubber a \$5,000,000,-000 annual business. Man-made rubber techniques have broken the dependency on natural rubber supplies. In taking over synthetic rubber from the government, rubber, oil and chemical companies will be investing \$310,565,000 in private risk capital during the next ten years and many more millions, of course, will be put into new ventures that the industry has been developing on its own. Obviously,

with such an investment, the American rubber industry is going to have to develop new uses and new markets for its products, lest these new investments snap like a rubber band.

A survey among the leading rubber companies of America indicates that scores of new developments are underway or in the planning stage. These range from fascinating little do-it-yourself gadgets to moving sidewalks, rubberized highways and even bold invasions of fields formerly dominated by metals and other

By the end of March, it will be known how the plan to sell the government's synthetic rubber producing facilities to private industry has fared with Congress. The background is this:

Before World War II the United States was entirely dependent on foreign natural rubber plantations. Fortunately, before we were attacked at Pearl Harbor, the rubber industry had been experimenting with synthetics. The B. F. Goodrich Company had a small pilot plant in operation which actually had produced synthetic tires, and other companies were well along, so the country at least had a nucleus of in-

dustrial know-how. Pearl Harborfollowed by the loss of more than 90 per cent of our natural rubber sources when the Far East fell to the Japanese-forced the government into a "crash" synthetic program. Uncle Sam put up the cash, about \$700,000,000, and industry did the operating.

War urgencies sped development almost miraculously. In little more than two years, the U.S. was producing at the rate of 1,000,000 long tons of man-made rubber a year.

After the war, both crude and synthetic rubber were competing in the American market, and the government was disposing of some of its plants. Came Korea: The price of crude rubber skyrocketed, and the government, while building up its natural rubber stockpile, hastily began cranking up the synthetic production line again.

Even before Korea, the Truman Administration recognized, and so recommended to Congress, that the government should get out of the rubber business. With the Korean involvement, however, the government felt it advisable to retain the plants and put them under highspeed operating contracts with priAbout 1,000,000 tons of the new rubber the world consumes each year are synthetic. Manufacturers say that new types and new methods could meet the United States emergency demands if war shut off sources of natural product

Natural rubber still meets greater part of world's consumption needs of 2,550,000 tons annually. Estimates are that, by 1960, world will require 3,000,000 tons. United States consumption, today some 1,280,000 tons, may be 1,600,000 then

vate companies. It was not until the Eisenhower Administration that Congress passed a bill authorizing a Rubber Producing Facilities Disposal Commission to sell the government's remaining 27 plants.

The bill imposed almost strait-jacket procedures upon the three businessmen commissioners, Chairman Holman D. Pettibone, Leslie R. Rounds and Everett R. Cook. "Full fair value" for the facilities was demanded. Furthermore, the bill bound purchasers to protect national security by keeping the plants in operating condition for ten years, and small business interests were protected by further clauses designed to assure a source of supply to small manufacturers unable to buy plants of their own.

Despite these tough terms, some congressmen called the program a "giveaway." However, the Commission negotiated slowly and meticulously in a manner which since has been praised by numerous industry leaders and congressmen alike. In January, it made the details of its labors known to Congress. In a nutshell, the picture was this:

▶Offered for sale—27 plants; original cost, \$553,140,138; net book

value after depreciation, \$151,144,-542.

▶Sold—24 plants; original cost, \$488,584,000; net book value after depreciation, \$131,954,000.

▶Price to be realized by government
—\$310,565,000 (\$285,465,000 for
plants, balance for equipment and
inventories on hand).

Because the Commission had been granted unusual latitude, it negotiated with prospective purchasers over a 13-month period—some observers have described the process as a "slow auction"—and was able to bring up the original bids by approximately \$35,000,000.

The three unsold facilities-Copolymer plants at Institute, W. Va., and Baytown, Tex., and an alcohol butadiene plant at Louisville-are supposed to go into standby status for future emergency use. The Commission reports that it will cost \$880,000 a year to keep them in moth balls. The government still is attempting to negotiate a lease arrangement for the Louisville plant. Rep. Albert Thomas of Texas, unhappy over the prospective shutdown of the Baytown operation in his district, had a bill ready, even before the Commission reported to

Congress, striving to save the Texas plant from moth balls by seeking further bids for sale or lease. In the Senate, Lyndon Johnson, powerful Democratic majority leader, and his junior colleague Senator Price Daniel, joined in introducing a similar bill.

The disposal bill does not specifically require that Congress approve the Commission's recommendations for sales, but it fixes a 60-day period in which either House may dis-approve the bids. The Senate Banking and Currency Committee and the House Armed Services Committee will scrutinize the bids. Undoubtedly, there will be some political sound and fury. However, a majority of the legislators in both Houses who favored the disposal program in the Eighty-third Congress are members of the Eightyfourth, and it is considered likely that the sales will be approved.

The majority of the prospective purchasers are the same companies now running the plants for the government, so there will be no revolution in operating methods. In several instances, smaller companies not connected with the "big four" of the tire industry have banded to-

gether to form operating corporations which submitted successful bids to The Disposal Commission takes pains to point out that small manufacturers are protected by the sale of a large slice of the synthetic rubber producing capacity to chemical companies which are not themselves manufacturers and therefore will be keenly interested in selling to all consumers. This is important; although 20 of the larger manufacturers use 75 per cent of the supply, more than 600 fabricators depend on synthetic rubber to stay in business.

Optimism for the future is the unmistakable mood at the big rubber companies. Its leaders already were predicting that by 1960 demand for rubber and its allied products would exceed all the present

sources of supply.

There are variations, of course, in the exact predictions, but, in general, industry leaders agree with the long-range outlook drawn up for the industry's elder statesman, P. W. Litchfield. Goodyear's chief statistician, W. F. Bloor, forecasts: "We expect a five per cent increase in 1955, against last year's ten per cent mild recession from the boom levels of 1953."

The Goodyear statistician further estimated that the U. S. would use 1,280,000 tons of rubber in 1955 (based on a new car production of 5,500,000 to 6,000,000) and 1,500,000 tons in 1960.

Total world demand in 1960 is estimated at 3,100,000 tons, contrasted with the present world supply of 2,550,000 tons of natural and synthetic rubber combined.

Even more optimistically, President H. E. Humphreys, Jr., of U. S. Rubber, predicted that "1955 sales will probably be about \$5,000,000,000—or roughly equal to the all-time record set in 1953."

At Goodrich, where Board Chairman John Collyer, one of the industry's forward-looking leaders, has instituted an aggressive research program aimed at increasing diversification of products, economists place the 1960 U. S. rubber consumption even higher—1,600,000 tons. Chairman Collyer points out that the coming shortage in 1960 can be met in two ways: by building new capacities and by stretching the present output of both manmade and natural rubber sources.

Ever since the auto came of age, tires, tubes and repair materials have been the top item in U. S. rubber business, accounting in recent years for approximately 64 per cent of rubber consumption. A con-

tributing factor to rubber's current boom has been the 1955 big switch to tubeless tires as standard equipment on new passenger cars.

Tubeless tires have been a long-time dream of manufacturers, going back as far as 1895 when a tubeless bicycle tire of open belly design was patented in England. Tire makers have devoted years to adapting the idea for auto use. Now, they feel they finally have a satisfactory product. Not only has production been stepped up to meet new car demands, but the industry feels that the advertising campaign will stimulate drivers of older cars to switch to "tubeless," thus creating more new business.

Tubeless tires for monster trucks and buses and for all types of airplanes also are on the way. Harvey S. Firestone, Jr., board chairman of the company founded by his father, proudly exhibits the oversized tubeless products on which the largest heavy vehicles will roll in the future. It requires a change to a new wheel and rim, on which Firestone also is working.

At Goodyear, President E. J. Thomas discloses that his company is ready to provide special airplane wheels equipped with lighter weight tubeless tires in all sizes. They already have been test-flown on military and commercial aircraft.

Along with the synthetic rubber revolution has come another transformation of great significance: The rubber industry no longer is merely rubber—it also is plastics, chemistry, even pharmaceuticals and hundreds of by-products.

From the laboratories of each of the "big four" come products which have changed the living habits of American consumers. And new ones are on the way which will work

even greater changes.

Many of the aggressive smaller companies are also trail-blazing. General Tire, for instance, under the leadership of its president, William O'Neil, has moved extensively into the field of propellants and power plants for rockets, guided missiles and jet aircraft. It also has bought facilities for manufacture of "breathing plastics" that will compete with leather. Now its officials are talking-still guardedly-of a new project, still in the research and planning stage, that may enable synthetic rubber to compete seriously with conventional building materials such as steel, aluminum, wood and concrete.

Another smaller corporation, Seiberling Rubber Company, teamed with six others to form Copolymer

Corporation which submitted successful bids for two government plants Seiberling has been operating in Louisiana. At its Barberton, Ohio, headquarters, according to Vice President H. P. Schrank, Seiberling has set up a unique "braintrust" comprised of four imaginative technical men-a mechanical engineer, a chemist, a draftsman, and "a fourth ingenious guy who is able and willing to work at anything." This group's job is to study and plan new activities. This led recently to establishment of a plastic plant at Newcomerstown, Ohio, which is fabricating rigid polyvinylchloride sheets, known in the trade as PVC. This plastic, Mr. Schrank says, can do some of the lighter structural work of steel and can be turned out in transparent, multicolored and multishaped forms.

If Congress, as expected, sanctions the sale of the government plants, the responsibilities of private industry will be sharply increased. Not only will it invest more than \$300,000,000, but it will be assuming the burden of disposing of what the Rubber Manufacturers' Association estimates is a potential of nearly 1,000,000 long tons of synthetical synthesis.

thetic rubber a year.

No longer will the output be the government's property which industry may or may not buy; it will be the industry's product, which it must consume—or go bust.

In industry circles, there is an excited tenseness, almost akin to the feeling on the eve of a championship prize fight. The Natural Rubber Bureau, spokesman for the Malayan (largely British-dominated) plantation interests, is predicting the cost of synthetic will go up and that, with government "hidden subsidies" eliminated, crude rubber will be able to compete with synthetics on more equal terms.

On the other hand, manufacturers, who have severely criticized Far Eastern rubber interests on many scores, including price-boosting during emergencies, counter with predictions that prices will rise little. if any, and that the cost of the most used type of man-made rubber will stay in the neighborhood of the present government price of 23 cents a pound, plus 1.1 cents delivery charges. Both manufacturers and their association, the RMA, say that, although the time had come for Uncle Sam to get out of the rubber business and let industry do the job, there was little to criticize in the government's supervision of its partnership with industry. At the same time, they feel that private

enterprise may be able to cut some corners profitably through freer ability to exercise initiative.

The rubber-and-plastics industry has hundreds of fascinating new gadgets, gimmicks and new adaptations of old usages that will provide a useful chunk of business for the new synthetic tonnages. Among these, to mention just a scattering, are:

- ▶ Full lines of do-it-yourself foam cushioning products, adhesive-backed floor tiles and plastic wall and furniture coverings (including some with permanently built-in designs) for the handy home decorator.
- ▶ Rubberized paint that can be scrubbed repeatedly with soap and water.
- ▶ Butyl tube frames for skyscraper windows (the new Alcoa aluminum building in Pittsburgh has them) that can be deflated and inflated by a hand pump, making it possible to reverse the window completely, thus eliminating need for outside window-washers.
- ▶ Plastic air filters (for central heating and air-conditioning units) that contain lifelong electrostatic charges which "electrocute" dust, pollen and soot particles in the air. ▶ "Torsilastic" rubber vehicle springs which already are in use in nearly 1,000 buses (Goodrich, the developer, actually hand-built a special passenger car for demonstration and test purposes).

▶ Special rubber that conducts and stores up heat, providing warm floors and heating panels.

New rubber sleeping units that combine both mattress and foundation (all coil springs eliminated) that you blow up or deflate to control the desired degree of firmness (U.S. Rubber, the maker, points out that there are twin "firmness control units" for double beds in case husband and wife disagree on how firm a mattress should be).

Lifetime cabanas and awnings made from translucent, gaily colored plastics.

Spark-proof synthetic rubber flooring for operating rooms of hospitals, laboratories and munitions factories.

▶ Plastic packaging, which offers all sorts of imaginative possibilities. ▶ Numerous clothing and footgear applications, including crack-proof shoe uppers in rainbow hues made from the new leather-like "breathing" plastics. Also a fabric (accidentally discovered in the course of experiments with a new synthetic substance) that duplicates the feel of fine cashmere.

Many ingenious chemical sprays, including sticky ones impervious to



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rain; bad-tasting ones that discourage animals from nibbling at crops, and mysterious ones that kill insects but not warm-blooded ani-

Finally, a versatile "miracle" substance which started out as a synthetic rubber component but turned out to be a valuable germ killer for use in hospital blood and artery banks.

Obviously, however, it will take more than specialized products to use up all the rubber that is going to be made if private industry is to operate its new plants at high capacity. Hence, the rubber manufacturers have their sights set on bigger game than gadgets. Some of the really big markets they are eyeing are these:

1. The entire latex foam field. Foam rubber is surging into high popularity, with increasing acceptance of the product for mattresses, auto cushions and furniture upholstery. Till now, natural rubber, because of superior resiliency qualities and its lack of "synthetic" odor, has dominated this market. Now, through American adaptations of a German product called Vulcollan, the synthetics industry believes it is on the verge of challenging natu-

ral rubber in the foam field.
2. "Rubber" highways. This is another development pioneered by the natural rubber interests which the synthetics industry is ardently wooing. It was demonstrated in Europe and elsewhere that a small percentage of natural rubber mixed with asphalt made durable highways, highly resistant to wear and weather. A Dutch road so treated stood up under years of grinding by Nazi tanks and other war vehicles during the occupation. Synthetic rubber manufacturers, as well as natural rubber interests, now are making their products available for test stretches of highways-also airfields-in many American cities. If it proves practical and the idea catches on, commercial horizons obviously are limitless.

An appealing by-product of the "rubber" highway idea is the use of rubberized pellets as surface material for children's playgrounds. Nasty cuts and abrasions have been averted.

3. Passenger and industrial materials conveyor belts. This is one of the most intriguing of all the fields in which synthetic rubber use can expand. Among many developments by the big companies, Goodyear pioneered in building a \$1,750,000 conveyor belt to carry rock nearly ten miles (actually, there was a 20-mile continuous belt for the roundtrip) during the building of California's Shasta Dam. Goodrich recently has installed a three-mile, four-way conveyor network to feed the TVA steam plant that supplies power for the Atomic Energy Commission's plant at Paducah, Ky. Goodyear put in a "Speedwalk" or moving sidewalk-that carries homeward-bound commuters up a 227-foot inclined ramp at the Hudson & Manhattan Erie tube station in Jersey City, N.J.; Goodrich has installed moving sidewalks at the Chicago Museum of Science and Industry and, more recently, at the coliseum which houses the Houston (Tex.) Fat Stock Show and Rodeo.

Most ambitious of all the projects, however, is the Passenger Belt Conveyor subway system which Goodyear, through a new corporation formed in partnership with the Stephens-Adamson Manufacturing Company, soon will install to replace the Times Square-Grand Central subway shuttle in New York City. The new system will be a continuously moving belt which carries lightweight passenger cars. The idea has so captivated New York's Mayor Wagner that he has proposed extending the new system to serve the United Nations area on Manhattan's East River.

In addition to the broadening commercial vistas for synthetics, there are two extremely important new technological developments.

One is the ever advancing improvement in the methods of making synthetic rubber. All the major companies are developing new techniques. Goodrich has excited interest with a so-called "pipeline polymerization" plant which eliminates the huge pots now required. Its Akron pilot plant for this process has been demonstrated to a congressional committee.

"Though there still are 'bugs' to be worked out," a Goodrich official said, "the new process, when perfected, will mean that cold rubber can be made 50 times faster than by current methods in a plant about one tenth the size now required. This, in turn, means smaller capital investments. It will make present plants and methods obsolete.'

These new manufacturing techniques well may be the rubber industry's solution to the raw material shortage expected by 1960.

The second discovery is even more revolutionary. William S. Richardson, president of Goodrich-Gulf Chemicals, Inc., has announced that a Goodrich-Gulf Oil research team has cracked the long-sought secret of "reproducing the true molecule of crude, or tree-grown, rubber." In the rubber world, this is

comparable to discovering the legendary alchemist's stone that would

turn lead into gold.

"In all tests made to date," Mr. Richardson revealed, "the newly discovered man-made rubber possesses the physical properties of crude rubber, even to tack and stickiness." He emphasized, however, that the new product, on which patent applications have been filed, is costly in its present state. It will by no means supplement present types of synthetic rubber, which are considered superior to natural rubber for some purposes, but it would fill the need for natural rubber-if those sources again were shut off-in the fields where the natural product is best.

Is natural rubber dead? Is the age of synthetic rubber truly here? To both questions, the answers must

be qualified.

The natural rubber interests are far from willing to admit that crude rubber is dead. The Natural Rubber Bureau points to extensive research to improve crude rubber products. Even without the United States, of course, natural rubber has a world market-as long as the Far East stays out of communist hands. Except for the U. S., Canada and Russia, which grabbed a good part of its synthetic rubber facilities from East Germany, the rest of the world has been remarkably slow in building man-made rubber facilities.

As for the age of synthetic rubber, American manufacturers substantially agree that, for all practical purposes, it already is at hand in the United States. This year, it is estimated that man-made products will supply 54 per cent of new rubber consumption in this country.

For some products, such as big truck tires, which in motion generate too much heat for advantageous use of synthetic rubber, natural rubber still is indisputably superior. While estimates vary on percentages of usages for which the rival rubbers are best adapted, some authorities state that the nation's economy could get along on as little as 25 to 30 per cent of natural rubber without suffering.

Furthermore, they contend that synthetic rubbers now are good enough so that, if we were caught in another war which shut off our natural rubber supply, we could "make do" on synthetics even after our huge crude rubber stockpile was exhausted, though it would be expensive.

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# SHE JUGGLES YOUR BILLIONS

Ethel Hodel switches funds among Uncle Sam's 12,000 bank accounts so that deposits are always sufficient to meet the 1,000,000 checks 1,100 fiscal agents write daily

By JERRY and ELECTA T. KLUTTZ

LIKE many married men, Uncle Sam relies on a woman to manage his cash and to save him from the embarrassment of an overdrawn bank account.

But unlike the average moneyhandling wife Uncle Sam's financial housekeeper must be something of a psychic. She must be able to predict with a high degree of accuracy the money he will spend each day, and she also must see to it that funds are available to meet her estimates. Her task would try the mind of Solomon.

Federal fiscal operations are on a world-wide scale and these are just a few of the factors she must consider in making her estimates:

Uncle Sam writes an average of 1,000,000 checks daily.

► He has authorized 1,100 fiscal agents the world over to write checks on his accounts.

▶ He maintains approximately 12,-

NATION'S BUSINESS - MARCH 1955



Miss Hodel, left, must be alert for the unexpected—like the cashing of a \$30,000,000 security note before maturity



Funds are switched from bank to bank on the basis of her estimates of need



Estimates of government's daily income and outgo are made 30 days in advance



Asst. Secy. Edward F. Bartelt chats with Miss Hodel and M. Moore who estimate cash needs for coming 24 months

000 different bank accounts.

► He spends at a rate of \$5,- to \$6,-000,000,000 in an average month.

▶ He has outstanding \$65,000,000,000,000 in defense bonds and other securities which could be cashed on any given day.

Finally, his actions have a direct impact on the nation's delicate money market, and could lead to either inflationary or deflationary influences, unless her calculations are properly handled.

This overpowering responsibility rests on the shoulders of attractive, quiet-spoken Ethel Hodel, a \$7,000-a-year employe of the Treasury Department, whose title is Chief of the Funds Control Section. Her treasury associates refer to her as the manager of the government's "cash position."

A less hardy soul could worry himself to death over the responsibilities, pressures and crises that are part of Miss Hodel's daily routine. In contrast, Uncle Sam's financial girl Friday describes her job as "fun and exciting."

Fortunately for Miss Hodel and the government, she received early basic training that helped prepare her to carry the burdens of her unique position. Her father, a certified public accountant, believed in practicing his profession at home on his family. Ethel's first allowance was ten cents a week and she had to account for her expenditures before her father would pay her next allowance.

Later, when she was at Wellesley College, Ethel learned to get what she wanted through such financial expedients as transferring funds from her book and food accounts to buy a hat or to go to a show. She dealt in pennies then; now she juggles millions and billions to meet both the expected and the unexpected in the government's daily cash operations.

The Defense Department, for example, wrote a \$40,000,000 check to the Ford Motor Company. It gave advance warning to Miss Hodel that the check was to be written. She assumed it would be presented to the Federal Reserve Bank in Detroit for payment so she transferred funds there to cover it.

The Ford Company, unaware of her preparations, presented the check to the Pittsburgh Federal Reserve Bank and the government's account there was overdrawn temporarily until she could transfer funds to meet it.

Such transfers can be accomplished in a matter of minutes.

In a similar transaction, a multimillion dollar check for defense work was to be paid to the General Electric Company in New York. Miss Hodel estimated it would be

# SHE JUGGLES YOUR BILLIONS Continued



Miss Hodel has been the government's cash manager since 1948. She joined Treasury staff in '42



Uncle Sam's "cash girl Friday" examines her grocery list with same care she uses handling billions

presented for payment two or three days hence to the New York Federal Reserve Bank. Instead, the check was handed to a GE representative in Cincinnati and ten minutes later he walked across the street and presented it to the Federal Reserve Bank there. The Cincinnati bank, unprepared, alerted Miss Hodel who made a quick switch of funds. As a result, her estimate of expenditures for that day were knocked into a cocked hat.

Miss Hodel also must keep an eye on the weather because its tricks frequently upset her estimates. Last fall, Hurricane Hazel ripped up the East Coast, leaving destruction in its wake and woe for Miss Hodel. New Englanders were unable to cash their government checks during that period and her estimates of expenditures by Uncle Sam through the Boston Federal Reserve Bank were upset for a week.

In a like manner, a heat wave, a major snowstorm or flood that interferes with the normal operations of a large number of people will be reflected in the government's expenses for those days. This is particularly true around the first of each month when Uncle Sam sends out millions of benefit checks to veterans, retired persons, Social Security beneficiaries and others. As a result, she watches for advance warnings of widespread weather disturbances so she can readjust her estimates to allow for their possible effect on the government's cash outlays.

Checks issued abroad usually clear through the New York Federal Reserve Bank. A game Miss Hodel plays with herself is trying to estimate how long to allow for them to reach New York so she can accurately estimate Uncle Sam's cash balance there. Recently, a \$29,000,000 check was given by the Foreign Operations Administration in Saigon to the President of Viet Nam for refugee relief in his country. It had to be flown to Paris then returned to New York for clearance. She estimated it would take five days and her guess hit it on the nose.

The government's cash manager is not expected to do that well each day. It simply isn't possible to forecast when a large corporation may decide suddenly to cash a \$30,000,000 government savings note before its maturity date. This happened recently in St. Louis.

Also, there are the inevitable human errors which cross her up. Miss Hodel is supposed to be notified before any government check of more than \$1,000,000 is issued. Her past Christmas was a bit hectic because a defense agency wrote a huge check which was presented for payment to the Chicago Federal Reserve Bank before she was aware of it.

Her supervisors say that Miss Hodel hits the bull's-eye any time she estimates from \$5,000,000 to \$10,000,000 of government expenditures on any given day. She frequently hits it on the button, down to the last \$1,000,000. Her estimates are rounded out in millions.

Miss Hodel prepares estimates

at least 30 days in advance on how much money the government will take in and pay out each day. No two days are alike. Uncle Sam's income ranges from \$50,000,000 to \$1,500,000,000 daily, and expenditures usually range from \$50,000,000 to \$800,000,000. The 30-day estimate is subject to constant revision.

On each Monday and Thursday Miss Hodel makes estimates for the next seven days of the government's income and outgo. Those are busy days for her. On the basis of her estimates, the Treasury must decide whether or not to call on the 11,000 commercial banks where Uncle Sam maintains accounts to turn over a certain percentage of funds to the Federal Reserve Banks.

The 36 Federal Reserve Banks—
12 main banks and 24 branches—
are Uncle Sam's primary depositories. All government checks clear through them. By nine o'clock each morning Miss Hodel is informed via teletype of the government's cash balance in each of those banks as of the night before; and also of the balances in the commercial banks in the respective Federal Reserve districts.

The 11,000 commercial banks are the government's secondary source of cash. What is known as a "Tax and Loan Account" is maintained in each of them in the name of the Treasurer of the United States. Withholding taxes and Social Security, receipts from the sales of defense bonds, and other funds are deposited to these accounts. When

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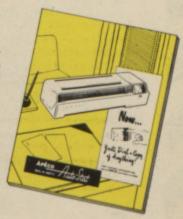
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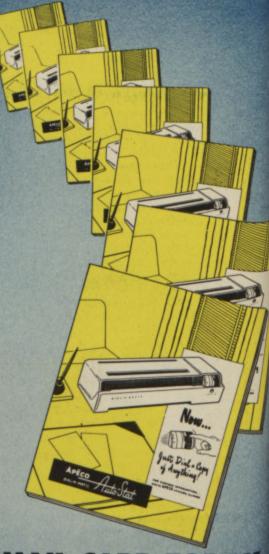
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it is necessary to supplement the government's operating accounts in the Federal Reserve Banks, Miss Hodel's calculations are used to determine what percentage of funds in the commercial banks shall be turned over to them.

In making these calls extreme care is taken not to place too severe a strain on the commercial bank's reserves. This would have a depressing effect on the nation's money market. On the other hand, if the government left too much money in its accounts in the commercial banks the effect could be inflationary. It follows, then, that Miss Hodel's estimates must be expertly arrived at so as to have the least disturbing effect on the money markets.

Miss Hodel's major interest is her work and she plans to continue her career in Treasury. However, she explains that entering Treasury was not planned. She once took a dim view of government work.

She grew up in Maplewood, N. J., and after graduation from Wellesley during the depression, she took a jack-of-all-trades position with the Milwaukee-Downer Seminary for Girls.

She was later appointed business manager of the school.

In 1942, Treasury was hunting for bright, draft-proof girls who could take over some of the chores of its men who either were in or were eligible for military service. Miss Hodel's sister, an attorney in Treasury at that time, was asked if she knew of any likely girls who could handle the department's fiscal She mentioned Ethel. When Ethel was contacted she reluctantly consented to an interview. She felt it was her duty in wartime to help in any way she could-the position was presented to her in that light-so she accepted it against her better judgment.
She entered the Treasury in De-

cember, 1942, and was promoted to her present position in January, 1948, on the sudden death of the man who had held it.

In her early 40's, Miss Hodel lives alone in a Washington apartment. Her hobbies are crossword puzzles, reading and gardening, which she does each week end at the home of her retired parents who live on the eastern shore of Maryland.

Edward F. Bartelt, the fiscal Assistant Secretary of the Treasury, Miss Hodel's superior, calls her the most efficient and effective person ever to occupy her position.

"She constantly amazes us with

her accurate predictions," he says.

Mr. Bartelt is the captain of Uncle Sam's team of money jugglers. He entered the Treasury in 1917 as a \$1,200-a-year clerk. Before that he was a bookkeeping instructor in Quincy, Ill. He took a Civil Service competitive test merely so he could advise his students about it, with no idea that he was taking the first step in a career that would lead to management of the government's billions.

He is assisted by William T. Heffelfinger, who entered Treasury 38 years ago as a 14-year-old kneepants messenger boy traveling on roller skates, and Martin Moore, who at age 19, was hired as a clerk in 1929.

Both Mr. Heffelfinger and Mr. Moore make long-range estimatesup to 18 and 24 months in advance of Uncle Sam's need for cash. On the basis of their work, decisions are made to float government bond issues or to refinance certain portions of the public debt. They also participate in decisions to make "calls" for cash on the commercial banks.

Miss Hodel is assisted by Mary Hanrahan and Kalmon Marmer. Her "understudy" whenever she is away on leave, is Mrs. Marie Warneson.

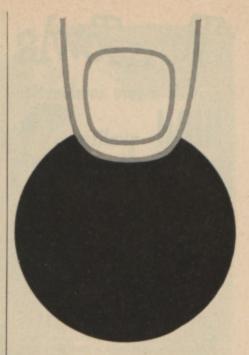
For the past year or so Mr. Bartelt and his team have walked a tight wire of high finance to enable Uncle Sam to operate within the legal public debt ceiling authorized by Congress. At his direction, the government had to postpone the payment of some of its bills until enough cash from revenues came in to cover the checks.

Under the present temporary law, the debt limit will again revert to \$275,000,000,000, on July 1, unless Congress continues the \$281,000,-000,000 limit or sets the limit at some other figure.

In any event, the Bartelt group will be in the spotlight as its estimates will be relied upon by all parties concerned in making the final decision on what to do about the debt limit.

The public debt is just one of the current problems that are plaguing Treasury's fiscal people. This year taxpayers have until April 15 to pay taxes on last year's income, so Miss Hodel is trying to figure out how many people will overlook the extension and continue to pay their taxes on or before the old March 15

These and other equally complicated problems are what make being Uncle Sam's "cash manager" challenging and exciting to Ethel Hodel.



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(Continued from page 32)
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But before going further, it is perhaps high time to see just how Phoenix scientists get nuclear energy to do all these things for them. In all its applications, Phoenix works with radioisotopes.

What is a radioisotope? The answer can be very complicated. But for our purposes it can be simple.

An isotope of a certain element is the counterpart of that element which has the same properties except that, through some transformation affecting the nucleus of its atom, the isotope has a different mass.

The word isotope comes from two Greek words—isos and topos—meaning same and place.

The atomic processes that go on in the modern nuclear reactor provide a way of converting one element into another by effecting changes in the number of charged particles in the nucleus. But the reactor will also make changes in the uncharged particles of the nucleus to give elements of the same species with different atomic weights. These are the isotopes or counterparts of that element.

For example, there are five isotopes of carbon with atomic weights of 10, 11, 12, 13 and 14. Two of these, C<sup>12</sup> and C<sup>13</sup>, are found in nature and known as stable isotopes. The other three, C<sup>10</sup>, C<sup>11</sup> and C<sup>14</sup>, are man-made and unstable. That means they are slowly decomposing or, in other words, they are radioactive. These radioactive isotopes emit alpha rays, beta rays and gamma rays, which are short X rays or electromagnetic wayes.

Industry and science use radioactive isotopes or radioisotopes in two ways:

First, as tracer atoms which follow the same path or process as the usual species of atoms but will reveal where they go even in the most complicated systems and processes. For example, Prof. Felix Gustafson, of Michigan's Botany Department, has been applying the isotope, cobalt<sup>20</sup>, to the leaves of common plants to find out how food is taken in through leaf surface and how it

circulates through the plant structure. As a result, he hopes to show lumber companies how they can use airplanes to spray hard-toreach forests and apply the necessary fertilizer through the leaves.

Second, but perhaps more important, radioisotopes can also be used as a source of radiation for countless important purposes, including the treatment of such diseases as cancer and brain tumor. In the Phoenix laboratories, the storage life of beef has been increased fourfold by exposing meat to gamma rays of cobalt<sup>60</sup>.

On a recent visit to the Michigan campus I saw the project's radiation source—a bundle of 100 rods of cobalt<sup>60</sup>, each three eighths of an inch in diameter and ten inches long. Cobalt<sup>60</sup> was chosen because it happens to last a long time; it loses only half of its energy in the course of 20 years. Cobalt<sup>60</sup> is produced by bombarding cobalt<sup>59</sup> with neutrons.

The rods in Michigan's bundle looked like ordinary little steel rods to me and the whole bundle would go in a good-sized ice bucket. But it constitutes the most powerful source of gamma radiation available in any non-government laboratory-radiation equivalent to that of 20 pounds of radium. Direct exposure for one third of a second would be fatal so, to insure safety when the rods are not in use, they are kept in the bottom of a 15 foot, water-filled pit. When they are needed, they are lifted out by remote control into a chamber with heavy concrete walls.

I saw the rods from a distance of about 20 feet—reflected in a mirror.

This cobalt bundle has served Phoenix well but the Project will soon be producing its own radioisotopes on the campus in a new \$1,000,000 reactor being erected with funds donated by the Ford Motor Company. Rated in the 1,000,000 watt classification, this reactor will be the most powerful operating in any university on an unclassified basis. It will be housed in a new \$2,500,000 Phoenix Memorial Laboratory, now taking final shape on the north campus. This laboratory will serve as the headquarters for most of the actual laboratory work, now scattered in several labs about the campus. Nearby, another imposing physical manifestation of Phoenix Project is rapidly taking shape: the new \$100,-000 Alice Lloyd Medical Center,

dedicated to cancer treatment by radiation and to the long-term evaluation of results and built as a memorial to Michigan's former dean of women who died from that disease.

But until someone showed me these two pieces of construction work, I hunted for two days for some tangible evidence of Phoenix Project and complained to its director, Dr. Ralph A. Sawyer, dean of the Graduate School, who masterminds Phoenix on the side.

"That's the way we want it," he smiled. "I'm constantly trying to emphasize that this is not a separate institute; it's the work of the university. We've thought of this as something that doesn't have a lot

of machinery."

Most of the machinery consists of Dr. Sawyer and his assistant, Dr. Henry Gomberg, a small chunk of perpetual motion who also carries a full teaching schedule. Dr. Gomberg acts as executive director and eats and drinks and breathes Phoenix Project 18 or more hours a day.

Like him all the people working for Phoenix are regular faculty people. They are allotted the time for Phoenix work, plus expenses, plus staff assistants when necessary. But not a cent of extra salary do they get. Nevertheless, they love the Phoenix work. It gives them a chance to discover something new and make a name for themselves. There's only one report a year and no supervision. Everything is relaxed, yet there's an intangible enthusiasm which resembles the driving force that created the whole thing in the beginning—the desire to put the atom to the service of mankind.

That desire came about because Frederic Joliot-Curie, Atomic Energy Commissioner of France, wrote an article for the United Nations World berating the United States for loosing on mankind the curse of atomic fission. He said the United States had made the atomic bomb but had done nothing toward utilizing atomic energy for good.

The article made Fred Smith, a New York public relations counsel, mad. He got an assignment from the same magazine to write a reply. Then after covering the whole country looking for material, he found that the United States really wasn't taking any comprehensive action toward utilizing atomic energy for peace. Eventually, he wrote an article putting the best possible construction on the situation but he didn't feel good about it.

At that time the University of Michigan was on the trail of a memorial to honor the Michigan stu-



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Jefferson City, Missouri

dents who died in World War II. A student-faculty committee had been appointed under the chairman-ship of Dean Erich Walter, now assistant to the president, and its members, most of them fresh from war service, had set their sights on the moon. At one meeting, Arthur Derderian, a student member, arose with clenched fists and exclaimed:

"I don't know what form our war memorial should take. But I do feel that it ought to be a light high in the sky, visible not only to our veterans who come back to the university but to their sons and all future generations of students. They should always see it. It should remind them of the ideals for which our students gave their lives."

The committee members took their jobs so seriously that they had Dean Walter write letters to distinguished men and women all over the world asking for opinions on the best memorial for Michigan. One of these letters reached Fred Smith. It gave him an idea. He wrote a memorandum to Dean Walter suggesting that the university undertake research in the peacetime applications of atomic energy and their effects on society.

"Make this project your war memorial," he urged.

Fred Smith's atomic research project was the "light in the sky" as far as the Michigan war memorial committee was concerned.

But then Marvin Nehuss, law professor member of the memorial committee threw a wet blanket on the whole idea. He said it would be impossible to carry out Mr. Smith's idea because of the restrictions the Atomic Energy Act laid on the private use of nuclear materials. At this, a good deal of resistance built up among conservative members of the university administration.

But the students wouldn't take "no" for an answer.

"It's the Atomic Energy Commission's job to develop peacetime uses of nuclear materials," insisted Arthur Rude, a student member of the committee. "And I don't see anything in the Act prohibiting a university from using the isotopes in research."

Student Derderian got to his feet.
"If the law won't let us do it," he said, "then let's change the law.
Let's go to Washington and see."

At the students' insistence, a committee of three was named to go to Washington. It included Dean Walter and Fred Smith and was led by Dr. Ralph Sawyer, a noted physicist, then Dean of the School of Graduate Studies. Dean Sawyer had been civilian director of Opera-

tion Crossroads and he knew a lot of people in Washington.

Much to everybody's surprise, the Atomic Energy Commission went for Michigan's program all out. A university could use radioisotopes in research, it said, as long as the field of security was not invaded.

The AEC not only permitted Michigan's participation but welcomed it

"From such a center," said its spokesman, "may come the answers to some of the urgent problems of today."

"It was those students who put it over," Roscoe Bonisteel, regents' member of the committee, told me. "I never saw a more dedicated group of young people. Maybe they felt they ought to make up for the sufferings caused at Hiroshima and Nagasaki. Anyway, they got hold of something they thought was important and they just wouldn't let go. We all caught it from them."

When the committee reported back to the campus, the regents gave



their blessing and the students went wild. They brought out a special edition of the *Michigan Daily* with a banner four inches high: "ATOM RESEARCH CENTER TO BE 'U' WAR MEMORIAL."

The front page was plastered with a 10 by 12 picture of an atom bomb explosion captioned "Harnessed for Humanity."

They called it Phoenix Project for the legendary bird of Egypt. In Egyptian religion the phoenix is a purple and gold bird that looks something like an eagle. Every 500 years it was supposed to come from Arabia to Heliopolis; here it built its nest on the altar of the sun god, was consumed by fire and rose again from its ashes young and beautiful. The phoenix was a symbol of immortality and resurrection.

Then began one of the most inspired campaigns in the history of fund-raising. All this happened in May, 1948, and, before the school year ended, the students had already collected large sums of money. When the 1949 year began, the campaign really got down to business. G.I.'s dug down into their savings to contribute. Alumni clubs

conducted community campaigns and members made speeches in civic clubs all over the country. Women worked with fanatical enthusiasm to raise funds for cancer research. They worked harder because their contributions went to the new Alice Lloyd Medical Center.

Influential alumni in industry swung their businesses into line and got large grants. The late George Mason, former President of American Motors, acting as industry and special gifts chairman, was responsible for most of these. Chester Lang, vice president of General Electric, was national executive chairman of the campaign.

"We asked for \$6,000,000 and got \$7,500,000," he told me. "I never saw anything like it in my life."

But the most surprising thing to everybody was that contributors' enthusiasm continued. This project is a living thing which they intend to see out to the end.

"They've put in their money and they're stockholders," is the way

Mr. Lang adds it up.

One reason the enthusiasm continues is that Phoenix already shows tangible results, not only in industrial applications but in the fields of medicine, physics, chemistry, botany, biology, zoology and even sociology.

Doctors using Phoenix funds in the university hospital are already applying isotopes in diagnosis, treat-

ment and research.

They are applying advanced nuclear techniques to the treatment of brain tumors. Dr. Phil Johnson, of the Alice Lloyd Laboratory, is using an automatic machine evolved by Phoenix Project to localize brain tumors employing radioactive iodine. This eliminates the necessity in many cases of opening the skull for explorations. The machine is now being applied elsewhere.

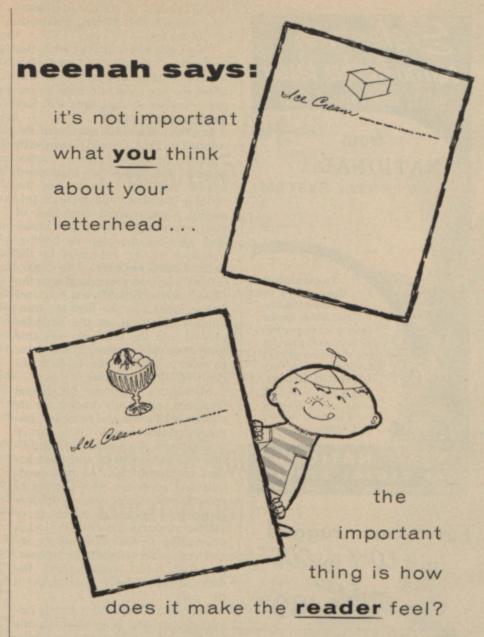
The doctors are routinely treating thyroid cancer with nuclear techniques, sometimes with spectacular results.

The doctors use phosphorus<sup>32</sup> for diagnosing lesions of the eye to determine if cancer is present. By accurate diagnosis, many needless eye removals are eliminated.

The radioactive-iodine treatment of hyperthyroidism has become practically routine.

Phoenix money is used not only for treatment but for research projects. With its help, doctors are now investigating the nature of rheumatic diseases.

In chemistry, much is expected to come of a long-term project financed by Goodyear to find out how the gamma rays of cobalt<sup>60</sup> can affect



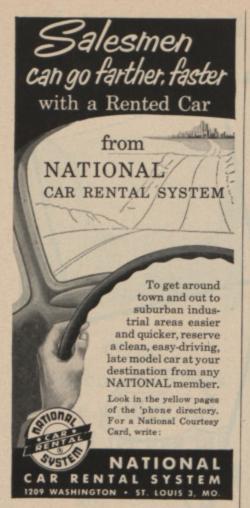
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the properties of rubber and plastics. Says L. M. Hobbs, Professor of Chemistry:

"We have hopes of improving the properties of plastics materials without putting in agents that will affect the age. We also hope to improve rubber so that tires will last years longer."

In physics, a new instrument developed by Prof. Donald Glaser with Phoenix funds is helping science observe the paths of high-speed atomic particles. Known as the "bubble chamber," the device is primarily a quart-sized container of clear, superheated liquid kept under high pressure to delay its boiling. Professor Glaser placed it in the path of particles whirled to 2,000,-000,000-electron-volt energies in the Cosmotron at Brookhaven National Laboratories. In the first ten minutes of operation, as the particles plowed into the fluid, he was able to photograph nuclear interactions, he reports, seldom seen in their entirety by older methods.

Michigan's Institute for Social Research, nationally known for its studies of opinion and behavior, has published the results of a survey dealing with the peacetime possibilities of atomic energy and their impact on the public. As new products and processes, new sources of power, new tools and techniques come into being as a result of atomic research, Phoenix Project is attempting to find methods for social expansion without the upheavals that have characterized the introduction of basic discoveries in the past.

Michigan's Institute of Public Administration has been studying the public administration aspects of the atomic energy program-relationships of the AEC with other government bodies, with industrial contractors and with labor. The study has resulted in a book entitled "Congress and the Atomic Energy Commission," by Morgan Thomas and Robert Northrop of the Political Science Department, which is now in the process of publication. It is a chronological and factual study of the whole program, attempting to show the quality of the control that has been exerted over the taxpayers' \$12,000,000,000 investment. It is expected to serve as a reference book in the controversies over

atomic energy has been handled.

But of all the Phoenix projects,
the work in food preservation is
farthest advanced.

For instance, potatoes exposed to gamma rays are fresh after a year; nonirradiated potatoes are withered and covered with sprouts.

The Fission Products Laboratory

has worked out a pilot plant capable of irradiating 250 bushels of potatoes an hour at an estimated cost of six cents a bushel. The plant could be built for less than \$50,000 and operated for about \$40,000 a year including the rental of the radioactive source. The process does not harm the potatoes, according to Lloyd Brownell, supervisor of the Fission Products Laboratory at Phoenix. and 2,000 taste tests have failed to give any indication that the flavor is affected. Four generations of rats have been eating the potatoes for a year and a half without harmful results.

A number of large potato-processing companies are interested and in particular the National Potato Chip Institute. About ten per cent of the American potato crop goes into chips, some 30,000,000 bushels a year. With irradiated potatoes firms making potato chips could use local potatoes all year long. This means tremendous savings in shipping costs alone. It costs somewhere between \$3.50 and \$4.00 a ton to treat potatoes compared with a cost of \$25 a ton for shipping potatoes from Florida to Michigan in the summer. It now remains to determine whether radiation-preserved potatoes are suitable for chipping. Tests are expected to be run in the near future and if the results are favorable, the Institute proposes to organize a research study and construct a pilot plant for actual commercial trials.

Far-reaching effects on public health are expected from the project's radiation-treatment of pork for trichinosis. It is estimated that 25 per cent of all Americans contract this disease in varying degrees and severity. In most cases the disease is not recognized, but among known cases the mortality rate is approxi-

mately five per cent.

The source of human infection is the larva taken in by eating undercooked pork. This larva gets into the pork when the hog eats infected pork fed to it in garbage. In human intestines the larva hatches, the adults mate and the second generation larva enters the blood stream and winds up as a cyst in the muscle. Public health efforts to stamp out the disease have resulted in laws in 41 states requiring that garbage be cooked before it is fed to hogs. But the laws are difficult to enforce. So trichinosis marches on.

The Fission Products Laboratory found that exposing trichinous pork to mild doses of radiation prevents the larvae from developing into adult forms when the meat is eaten.

The laboratory even went so far as to design a plant for the treatment of pork. It was found that pork car-

casses can be treated at a cost of only 11/4 cents a pound or 29 cents for a 135-pound carcass. The plant was designed to be readily adaptable to the conventional meat plant.

The National Conference on Trichinosis, including representatives of leading medical and health associations, last year recommended that the Atomic Energy Commission make a further study of this process in a good-sized pilot plant. Says Dr. S. E. Gould, one of the conductors of the Phoenix experiment and chairman of the National Conference on Trichinosis:

"Irradiating all pork commercially would eliminate trichinosis. Application of this treatment would be in the packer's interest. He could have a positive approach to sell a healthy product. It has a tremendous advertising potential, like the pasteurization of milk. We feel that the whole package is now wrapped up. The only place to go from here is to do it."

These are some of the highlights of Phoenix results in which contributors take pride. As far as they're concerned, anything can happen. One old lady wrote to ask:

"Since you can preserve food, can you preserve people-keep them

from growing older?"

"Of course the answer was no," laughed Dr. Gomberg. "I had to tell her that the preservation kills germs and all other forms of life.'

"But it's not such a silly question after all," he mused. "In the past 50 years, the life span has doubled as a result of the new scientific information. By the use of radioactive tracers, we're getting more and more information about the living cell every day. This will undoubtedly result in making the life span longer.

One reason Phoenix stockholders follow its accomplishments so closely is that they want to be in a position to make an appraisal one day and decide whether to buy another share of stock. Everybody understands that Phoenix may come back and ask for money to carry on its work. This is because its directors decided not to invest \$7,500,000 in a trust fund and operate with the interest that would accrue. Instead they decided to take a ten-year gamble—invest the principal in free and unrestricted research.

At the end of ten years, Phoenix directors hope to be able to go back to the investors and report a profit -in terms of benefits for society. And if results continue to pay off as well for industrial shareholders as they have so far, the chances are that they will again decide that Phoenix is a good investment in the future.

73

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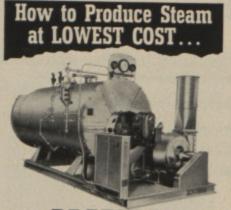


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### Your Stake in the Tariff Fight

(Continued from page 41)
a pound), glass, lead and paints.
The money was to pay colonial officers appointed by the King.

This was not only an onerous tax; it interfered with self-government. Before, if a colonial officer was unpopular, the legislature would neglect to raise funds to pay him. These new tariffs led to the famous Boston Tea Party.

Yet, the first act approved by the first United States Congress was a national tariff on July 4, 1789. The brilliant Secretary of the Treasury, Alexander Hamilton, chose this as a painless way to raise money and pay debts of the baby republic. The Secretary also wanted to protect the budding American glass, earthenware and rum industries from imports.

A quarter century later, the main aim of the tariff was protection. In this "era of good feeling" when Dolly Madison was the American belle, high tariffs were written for textiles, leather, paper, cabinetwork, hats, iron, hemp, wool, lead and glass. One foe of these high tariffs was Senator Daniel Webster, whose New England shipbuilders wanted to import hemp and iron duty free.

The first great battle over tariffs was a sequel to Henry Clay's "tariff of abominations." Fiery John Calhoun told the Senate that South Carolina would not pay the duties, and would stop collections at the Charleston port. The state actually passed a law voiding the tariff. President Andrew Jackson said he would try Calhoun for treason and "hang him as high as Haman." Henry Clay, the mediator, lowered the tariff and South Carolina repealed its nullification law. Nevertheless, this was the seed of the Confederate rebellion.

For the next 100 years, the tariff went up and down with political swings: New England manufacturers, mainstay of the Grand Old Party, favored high tariffs. The South, selling its cotton and tobacco to the world, opposed. New forces were thrown into the battle when, for example, the radical Populist movement argued that tariffs were a conspiracy by the rich to raise prices on the poor. Much later, a responsible section of the Republican Party, primarily in the West, pushed for lower tariffs.

Tariff was the issue in the heated presidential campaign of 1888. A "No Free Trade" parade down New York's Broadway bumped into a "Cleveland (Tariff) Reform" procession, and soon canes were flying and tall silk hats scattering to the winds. A cartoon showed Democratic House Leader Roger Q. Mills of Texas opening flood gates to drown American factories with European imports.

This came after President Grover Cleveland decided high tariffs were hurting the American consumer, and that our industry no longer needed this protection. He demanded tariff "reform" in a message to Congress. The Mills bill to accomplish it passed the House and was stopped in the G.O.P.-controlled Senate. Cleveland lost the next election.

Twelve years later, the tariff was one hated symbol of the Populist triumph which swept the "Billion Dollar Congress" out of office together with the high tariff champion, Rep. William McKinley. The new Congress threw out high rates. Yet, in another seven years, McKinley was elected President and Congress passed the highest tariff since the Civil War, an average of 57 per cent.

Two crippling revolts within the Republican Party in the first quarter of this century can be traced to tariffs. Both grew out of the Payne-Aldrich bill raising duties on 600 items. Congress defied President William H. Taft who, in response to pleas from the West, committed his party to lower tariffs, and sent a special message to Congress. Sen. Nelson W. Aldrich, boss of the Senate, rewrote the bill to suit himself. The aftermath was the "Progressive" revolt in 1910 and the Bull Moose split two years later. Then Woodrow Wilson and the Democrats were elected, and cut duties on 958 items.

The highest tariff in history, the Smoot-Hawley Act, was passed in the Hoover Administration. We are still using these rates set in 1930 as the base for reciprocal trade negotiations. If a rate is cut 25 per cent, it is that much below the Smoot-Hawley standard.

The high tariff was buried by the world depression. The shadow of the future was seen first in Europe. The small interdependent nations had no cash to buy imports. Germany pioneered a system much like barter. She and her neighbors agreed to buy like amounts from each other under low tariffs. This was the reciprocal trade principle,

# Annual Statements

# ☆ THE HOME ☆

Insurance Company AUTOMOBILE FIRE

and THE HOME INDEMNITY COMPANY

### Balance sheet of THE HOME INSURANCE COMPANY December 31, 1954

ADMITTED ASSETS	LIABILITIE
United States Government Bonds \$ 81,571,962.52	Reserve for l
Other Bonds 94,561,406.92	Unpaid Losse
Preferred and Common Stocks 199,039,024.72	Taxes Payab
Cash in Office. Banks and Trust Companies 23,895,857.61	Reserves for
Investment in The Home Indemnity	Dividends De
Company	Other Liabil
Real Estate	Total I
Agents' Balances or Uncollected Premiums,	Capital
less than 90 days due	Surplus
Other Admitted Assets 5,255,553.62	. Surplu
Total Admitted Assets \$452,602,732.92	Total

Unearned Premiums . . . \$175,675,958.00 es and Loss Expenses 43,281,009,63 5,675,000.00 Reinsurance . . . . . 1,810,986.40 eclared . . . . . . . . 2,000,000.00 lities . . . . . . . . . 4.647,561.32 Liabilities . . . . . . . \$233,090,515.35 20,000,000,00 . . . . . . . . . . . 199,512,217,57 us as Regards Policyholders . \$219.512,217.57 . . . . . . . . . . . \$452,602,732.92

NOTE: Bonds carried at \$5,936,585.11 amortized value and cash \$82,500.00 in the above balance sheet are deposited as required by law. All securities have been valued in accordance with the requirements of the National Association of Insurance Commissioners.

### Balance sheet of THE HOME INDEMNITY COMPANY December 31, 1954

ADMITTED ASSETS					
United States Government Bonds				. \$	20,981,611.72
Other Bonds					17,898,690.96
Preferred and Common Stocks					14,322,398.00
Cash in Office, Banks and Trust Companies					2,141,817.14
Agents' Balances or Uncollected P	re	mi	um	18,	
less than 90 days due					4,184,519.99
Other Admitted Assets					937,814.99
Total Admitted Assets .				. 8	60,466,852.80

### LIABILITIES

Reserv	e for	Une	arr	ned	Pr	em	iiu	ıms				\$	17,408,676.00
													22,011,128.00
Taxes	Payal	ole .											770,000.00
Reserv	es for	Re	ins	ura	nce								52,606.00
Other	Liabi	litie	8 .										176,444.17
	Total	Lia	bili	itie	8							8	40,418,854.17
Capita	1 .												1,500,000.00
Surplu	8 .												18,547,998.63
	Surpl	us a	s R	legi	irds	P	ol	icy	ho	lde	rs	\$	20,047,998.63
	Total											8	60,466,852.80

NOTE: Bonds carried at \$1,105,000.00 amortised value in the above balance sheet are deposited as required by law. All securities have been valued in accordance with the requirements of the National Association of Insurance Commissioners.

HAROLD V. SMITH, Chairman of the Board

KENNETH E. BLACK, President

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adopted by the United States under Secretary of State Cordell Hull in 1934. Congress gave the President power to negotiate trade agree-ments and lower tariffs, without specific approval of Congress in each case. It is a three-year renewal of this power that is causing so many sparks to fly now.

The President requested authority to cut tariff rates on selected items five per cent a year for three years, to reduce to 50 per cent any tariffs over that rate, and to cut in half the rates (in effect since Jan. 1. 1945) on items either not imported or brought in in negligible quanti-

The Administration's success will depend largely on how senators and congressmen feel the measure will affect their constituents. One Congressman checked to find out. Rep. Clement J. Zablocki, D., Wis., wanted to know just how manufacturers in his home town, Milwaukee, felt about tariffs. He asked the efficient Legislative Reference Service of the Library of Congress to find out.

Questionnaires were sent to 250 firms and 180 of them, representing three fourths of all factory workers in Milwaukee, replied.

Milwaukee is a good city for such a study. It is a center of the capital goods industry, a feast or famine segment of the economy. Manufacturing here is spread through a varied field, from auto bodies to beer to food products to textiles. The replying companies are a representative cross-section for both size and variety.

Fifteen of the companies, mostly smaller concerns employing a total of 4,933 workers, said positively that imports hurt them.

Of 42 companies employing 48,-150 which export and also have import competition, 22 indicated concern over foreign rivalry.

Fifty-four companies which employ 76,630, sell outside the United States and were not worried by imports.

Sixty-nine companies with 15,435 on the payroll had no interest one way or another.

Comments of those hurt by imports include:

A chocolate and cocoa products manufacturer: imports of foreign cocoa powders from Holland, England, France and Italy cut deeply into the cocoa powder business of the American chocolate group.

A company making women's gloves: Low labor costs abroadfrom \$1 a week to 25 cents an hour —create unfair competition.

A men's shoe factory: British imports sold in two Milwaukee department stores are priced below its products.

A small company that produces transformers, mostly dry pipe and substations: Imports (from England, Sweden, Switzerland and Germany) are a serious competitor and may result in reduced employment in Milwaukee.

A manufacturer of coke, gas, tar, ammoniacal liquor and light oil products: adversely affected by the low-price imports of creosote, naphthalene and benzol.

One of those who have some exports and compete with imports in the home market, a small maker of lace paper, paper cups and napkins, figured that imports competed with about ten per cent of his production. Several firms supplying parts or business supplies to the Harley-Davidson motorcycle company in Milwaukee said their sales to this customer were down. The reason they gave was the increasing popularity of foreign-made motorcycles here.

A water meter manufacturer. who until recently had exports up to \$2,000,000 a year, complained this market has virtually dried up because of European and Japanese competition. He insisted that tariffs be kept up on these products.

Among those that favor foreign trade, a firm manufacturing such bronze products as castings and wire pipe commented, "Our export business, while not large at present, is increasing yearly and we have coverage throughout Europe, Mexico and South America.'

A padlock company stated, "We actively promote the sale of our products overseas and would suffer a serious blow if forced to discontinue our foreign business. It should be remembered that our export business helps pay the general overhead and other fixed charges.

A large producer of gasoline engines with three per cent of its goods going abroad said, "We believe export business is good for Milwaukee.

Another of the bigger firms, a manufacturer of oil burners, road machinery and the like, wrote, "The city of Milwaukee depends a great deal on exports for full employment."

Several of the exporters listed as problems the tangled currency web abroad, restrictions against United States goods in the sterling area, and German competition in Latin American markets.

This study of Milwaukee manufacturers will undoubtedly help a calm analysis, but the lines long ago were tightly drawn in the tariff battle. In general, heavy industries.

the agricultural South, investment banking, and the retail trade favor low tariffs. This is shown by membership in the Committee for a National Trade Policy, backing the President's tariff program. Its active members include officials of such firms as the Ford Motor Co., General Mills, Chase National Bank, Marshall Field, Bell & Howell, Bank of America, Standard Oil of California, Pillsbury Mills, and Crown Zellerbach Paper Co.

The opposition centers around coal, independent oil, chemicals, pottery and glassware, textiles, watch making, dairy interests, and a number of small manufacturers.

The main points of the low tariff

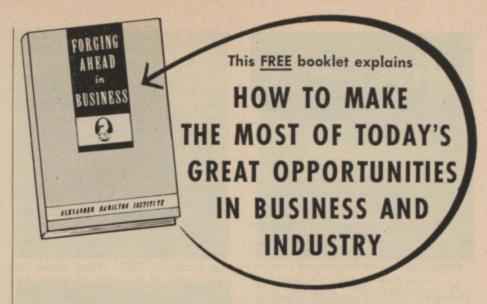
partisans are:

The United States needs immense imports of raw materials. Since World War II we have imported more raw materials than we produce. We bring in all our tin, natural rubber and jute; more than two thirds of our chrome and manganese, and more than 30 per cent of our copper, lead, zinc, tungsten, bauxite and antimony.

Even a wide open door would not harm our economy in one view. A report to the President's Commission says that if tariffs and quotas were temporarily dropped "the increase in imports would not be large enough to present an insuperable problem of adjustment to the United States economy as a whole, even in a short run." This study suggests that only 3/10ths of our imports would expand for a total increase of eight to 17 per cent. The items which would show the greatest increases would be earthenware and chinaware, glassware, leather gloves and bags, clocks, canned tuna, linen, scissors and shears and folding blade knives, among others.

As Standard Oil of New Jersey's president, Monroe J. Rathbone, put it, "Every U. S. dollar that goes into foreign trade eventually comes home to the United States, but on its travels it often fosters trade in many areas." Mr. Rathbone pointed out that we spend dollars to buy wool, rubber or tin from such sterling nations as Australia and Malaya. The dollars are then used to buy sugar from Cuba or wheat from Canada. These countries spend the dollars here. Venezuela, whose residual oil has invaded the eastern seaboard, bought and paid for United States goods valued at more than \$500,000,000 in 1953. American companies in 450 cities sold to Venezuela, which gets 95 per cent of its foreign exchange from oil sales.

In its plea to Congress, Creole Petroleum Corporation, chief exporter of residual oil to the United



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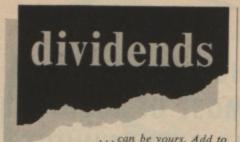
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States, advised Rep. Dan Reed, ranking Republican on the Ways and Means Committee, and a foe of low tariffs, of the towns in his upstate New York district that sell to Venezuela. The Creole statement said, "Jamestown ships metal office furniture, Little Valley sends powdered milk, Olean sends engines and compressors."

Exports are vital to our expanding economy. James S. Schramm, vice chairman of the National Trade Policy Committee, warned, "We stand to suffer a heavy economic loss if we err. Our exports alone were worth more than all the housing built in 1953. They came to two thirds of the amount spent by consumers on durable goods. They embraced 40,000,000 acres of our farmland. Our farmers sell a quarter of their wheat, cotton, tobacco, dried fruits and vegetables abroad. Industry sells ten per cent or more of its trucks, locomotives, machine tools, tractors and penicillin abroad. . . . The U. S. is keyed to constant growth. Each year the average factory hand turns out three to five per cent more than the year before. Where are we to find markets for this expanding production, unless overseas?"

As we lower tariffs, the argument goes, we win import concessions. More than 50,000 items in tariff laws of some 40 countries have been reduced or deleted under the reciprocal trade program. (Rep. Noah M. Mason, R., Ill., an ally of Congressman Reed on Ways and Means, says this is nonsense; that all such concessions have been nullified by other type barriers.)

The opponents of free trade have one great argument.

Low tariffs have hurt some home industries. An unemployed West Virginia miner who believes he lost his job because of residual oil does not care how many cans of powdered milk Little Valley, N.Y., shipped to Venezuela. Rep. Elizabeth Kee, D., W. Va., said bitterly on her return from a European trip, "Nowhere did I see the economic stagnation that has enveloped many coal communities of West Virginia since residual oil began to surge into the fuel markets of the East Coast. To my way of thinking, our first obligation is here at home."

Other points against free trade

American industries vital to defense are being harmed seriously by imports. The National Coal Association charges that coal production is 100,000,000 tons below minimum defense mobilization needs, and that closed mines are costly and time-consuming to reopen. Residual oil,

according to this view, has displaced 34,000,000 tons of coal and 30,000 jobs. The late Sen. Robert Taft investigated the residual oilcoal conflict and reported, "The importation of residual oil is a direct damage to the coal industry. It is produced abroad as a by-product. Those who produce it are tempted to sell it at any price obtainable to get rid of it. This imposes a great handicap on the coal industry and is responsible for the closing of many mines." (The senator's brother, Charles Taft, is one of the greatest exponents of residual oil imports.)

Spokesmen for the chemicals and electric power equipment industries indicated that American defense strength is being seriously weakened

by foreign competition.

Philip D. Reed, chairman of the board, General Electric Company, said that the federal government has increased its purchases abroad of electric generating equipment from \$2,650,000 in 1952 to \$15,400,000 in 1953. This, he pointed out, has worked serious hardships on American companies, and the Motor and Generator Division of GE was "on the threshold of idleness" last October.

Special tools and machines are needed to produce this equipment. A generator, takes three years to build, and needs occasional repairs and replacements.

In event of war or political chaos abroad, deliveries, repairs and replacements of foreign-built equipment might be extremely difficult, Mr. Reed stated.

Mr. Reed recommended that the Tariff Commission be given power in its peril point review of reduced rates to consider the national de-

fense aspect.

The defense aspect was tackled from another angle by Edgar M. Queeny, chairman of the board, Monsanto Chemical Co. He told the Ways and Means Committee that U.S. production of organic chemicals, vital to security, are today 7,000,000,000 pounds short of Defense Department estimates of potential emergency needs for 1956. Yet, he warned, expansion within the United States is not warranted because of tariff cuts. In the chemicals field, the tariff rates are 50 per cent below what they were in 1930. Mr. Queeny said, "If this bill passes, Monsanto will have to change the character of its business, and the country will suffer. We will not research and build plants for new products that can be produced at lower costs abroad."

He said British wage rates for skilled chemical workers went up

CITY & STATE \_\_\_

from 28.5 cents an hour in 1930 to 53.3 cents an hour now. At Monsanto's St. Louis plant rates are up from 75 cents to \$2.365. In Germany, wage rates in this industry are one fifth those in the United States.

A further argument against reducing rates is that used by the Nation Wide Committee of Industry, Agriculture and Labor on Import-Export Policy. It contended that it is not fair to place cost raising burdens on U. S. business—such as farm price supports, minimum wages and social security—and, at the same time, expose this business to progressively tougher import competition by stripping away tariffs. The committee argued, too, that the change from a seller's to a buyer's market in the U. S. increased the competitive pressure of imports.

A final point made in the long and involved hearings is that the President's proposals would turn over Congress' traditional power to govern foreign trade to an international organization. This is a reference to the General Agreements on Tariff and Trade.

An important and compelling argument of the American Tariff League in full-page newspaper advertisements is that cheap foreign labor exploited by foreign manufacturers will kill American wage standards. The ad calls out, "Can you and your workers meet the competition of wage rates that are one tenth to one half of what you pay?"

In this call to arms, the Tariff League lists some 150 products, very few of which require highly skilled labor or complex machines to produce, that will be harmed by alleged "State Department plans to reduce tariffs." The items range from baseballs to watch bracelets.

There is no doubt that the American tariff is a grave issue in the cold war. One of Russia's strongest and most recent weapons is a tempting barter plan, hoping to draw nations away from economic union with the United States. Soviet propaganda hammers relentlessly that we cannot be trusted, that tariff walls will rise and shut out postwar production of Germany, Japan and West Europe.

A few facts fill in the background. Our share in world trade is enormous. We have but five per cent of the world's people, but we produce 40 per cent of total goods and services. For steel, autos, petroleum, the ratio is well over half.

Three years ago our exports were more than 20 per cent of total world exports.











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The free trade view of this disparity goes like this:

The dollar gap does work a hardship. Countries low on dollars feel they must hoard them and buy only the most essential goods. They sharply restrict purchases in the U. S. Only a tiny trickle of American cars may enter Great Britain, for example.

To this, Dr. Lewis E. Lloyd, economist of Dow Chemical Company

"Whatever justification the dollar-gap theory may have had in the past it is now an exploded myth.

"By subtracting defense supplies, which have no place in any discussion of normal trade, the so-called dollar gap evaporates from \$4,000,-000,000 or \$5,000,000,000 to \$1,000,-000,000 or less. By taking into account other factors like transportation and tourism it not only disappears, it suddenly turns into a net increase of \$1,100,000,000 in gold and dollar reserves held by other countries. Not only do foreigners have enough gold and dollars to buy whatever they need from this country (except defense supplies for which the American taxpayer pays), they also have enough surplus to send money here for invest-

"This is not intended to deny that specific other countries have encountered severe difficulties in meeting dollar payments since the end of World War II. But the root of these difficulties lies in economic forces entirely unrelated to tariffs."

In any case the free nations want to sell freely in the United States. earn dollars, and use them to expand sales here. When President Eisenhower sent his free trade message to Congress, the Sydney (Australia) Morning Herald observed: "President Eisenhower's message is a balanced and encouraging one. It is true, as some Australian critics have said, that ever since the war presidential appeals for developing trade by lowering barriers have been common form. When put into concrete shape, such proposals often fared badly at the hands of interest groups and Congress. The actions of 1954 were disappointing, but Mr. Eisenhower is sticking to his guns.'

Australia, as others of our allies, must export. If our markets are not open, they can turn to the Cominform, or resign themselves to a much slower economic progress. Holland gets 46 per cent of its income from exports, Belgium 40, Britain, 20.

A free nation economic alliance was set up in General Agreements on Tariffs and Trade born in 1947 with 22 members. This organization negotiates trade and tariff cuts among members, and covers more than 80 per cent of world trade.

All members are watching carefully how we handle Japan. That country is a strategic anticommunist fortress in Asia. Russia fears these islands more than any nation in all the Far East, and egged on the communists to overrun Korea to flank Japan. American policy, initiated by General MacArthur, was to make Japan strong enough to stand on its feet militarily, politically and economically. We would rebuild Japan's factories and find export markets. Without trade, Ja-pan would fall, because it is an industrial nation of 88,000,000 in an area the size of Galifornia.

President Eisenhower has thrown all his weight into the fight to open up the United States for Japanese products.

Yet there is powerful pressure in Washington from companies hurt or who expect to be hurt by Japanese imports, crying for exclusion. Japan is sitting on the fence. The new Premier, Ichiro Hatoyama, is beaming at both Washington and Moscow, as if waiting for the best offer.

The consequences, if Japan falls into the Cominform economic orbit because of tariff restrictions in the West, could be enormous. And yet, the kind of pressure being put on Congress today is hard to brush off.

A practical example is West Virginia. A maker of marbles for children at Parkersburg has besieged his congressman with protests about Japanese marbles. Not far away, a clothespin manufacturer in Richwood can prove he is hurt by Swedish clothespins. Throughout the state, there is a loud murmur of discontent over residual oil. As a result the state's congressional delegation opposes free trade.

The reverse is true, too. Tariffs were a major issue in the Fifth Maryland District northeast of Washington in the last election. A Democrat, Richard E. Lankford, unseated the incumbent G.O.P. congressman by attacking the Administration order cutting down Swiss watch imports. He argued all over the rich farming area, "The Swiss are the largest buyers of our highgrade Maryland export tobacco. If they can't sell their watches in

America, they won't have the money to buy our tobacco."

How to keep these conflicting interests apart is a problem that has worried Presidents for a century. One way is the escape clause and "peril point." The escape clauses give us the right to back out of trade agreements if a Tariff Commission investigation proves a business is being destroyed by imports, and the President finds this agrees with national security interests. President Truman turned down such a Commission recommendation on Swiss watches; later, President Eisenhower approved.

The "peril point" authorizes the Commission to set a floor on tariff cuts on specific items, if reductions below the "peril point" would endanger the home industry.

Another thought—an adjustment for injured home business—has been proposed by Allen Sproul, president of the Federal Reserve Bank of New York, Sen. Harley Kilgore of W. Va., and David J. McDonald, president of the United Steelworkers of America. Senator Kilgore favors subsidizing defensenceded industries by stockpiling or defense contracts.

The most detailed program was recommended by Mr. McDonald to the President's Commission on Foreign Economic Policy. He proposed that an injured company could have (a) federal funds to hire engineers, economic developers, market researchers to create new markets, (b) easy financing, (c) tax amortization on new plant and equipment needed to introduce new products or expand lines not affected by tariffs, and (d) special consideration in federal contracts. Too, he recommended that American industries with growing export markets be encouraged to locate branch plants in areas hit by imports.

A third section of the McDonald plan calls for unemployment compensation benefits extending beyond the usual length for displaced workers, special training and moving allowances, and placement counseling

The Commission put this program aside as out of its scope.

No one in Washington expects the answers to these problems to come overnight. But President Eisenhower set a course for U.S. policy in these words:

"It is essential for the security of the United States and the rest of the free world that the U.S. take the leadership in promoting the achievement of those high levels of trade that will bring to all the economic strength upon which the freedom and security of all depends." END





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- 11. Manufacture
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HOWARD W. SMITH, conservative Virginian, heads powerful Rules Committee which decides which of hundreds of bills introduced may be brought up for action in the House. Conservatives in both parties are looking to Mr. Smith to thwart any extreme proposals from New Deal Democrats. But new Democratic appointments to the committee have left conservatives with a one or two vote margin



JERE COOPER, a quiet Tennesseean with a gift for arbitration, leads House Ways and Means Committee. It originates tax bills and considers reciprocal trade agreements, social security, customs and the government's bonded debt. Mr. Cooper is President's strong right arm on reciprocal trade. He is expected to favor tax relief for small taxpayer



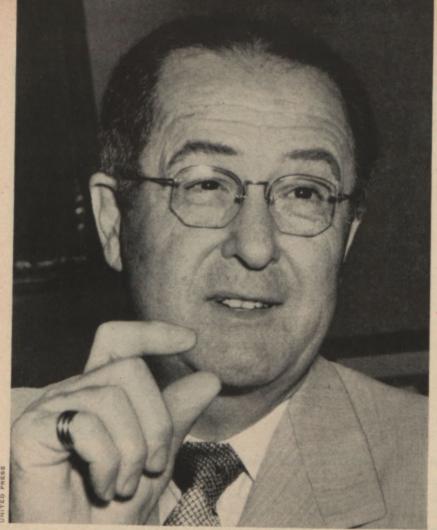


J. W. FULBRIGHT of Arkansas, former university president, has now launched study of stock market's behavior in his Senate Banking Committee. Study he made of RFC in an earlier Congress is still regarded as a model of fact-finding. Other committee targets are housing and Federal Reserve policies



LISTER HILL of Alabama is chairman of what many regard as most liberal committee in Congress-the Senate Labor and Public Welfare Committee. The seven Democratic members are liberal, prolabor; some of the six Republicans side with the eastern moderate wing of the G.O.P. Committee's projects

will include school construction program, minimum wage boosts, Taft-Hartley amendments and a reinsurance health program



CLINTON P. ANDERSON, of New Mexico, former Secretary of Agriculture, helps steer the course of peacetime atomic energy as chairman of the Joint Committee on Atomic Energy. Under his scrutiny will come patents, industrial participation, support prices for uranium-and national security. Senator Anderson, regarded as able and moderate, has opposed Dixon-Yates contract, but backed Agriculture Secretary Benson in his fight for flexible farm price supports



HARRY F. BYRD of Virginia, the new chairman of Senate Finance Committee, is an implacable foe of an increased federal deficit. In the Eighty-third Congress he was opposed to many Administration-sponsored tax cuts, and still is, for budget-balancing reasons



CARL VINSON of Georgia, the firm-minded House Armed Services Committee chairman, has had more to do with shaping of U.S. defenses than any other Congressman. He pioneered 70 group Air Force over the objections of President Truman and the late James Forrestal. In present session he will have to consider complaints over cuts in size of the Army



WALTER F. GEORGE, dean of the Senate, wields power almost equal to that of Secretary of State. A Georgian, he is chairman of Senate Foreign Relations Committee which will take up German rearmament and other hot issues. His leadership will be positive, bipartisan



CLARENCE CANNON of Missouri will lead assault on the budget as chairman of the House Appropriations Committee. He told House the budget was "deceitful." His final report is likely to accuse budget-makers of padding in some places and of neglecting major items like defense, agriculture and public power





JAMES E. MURRAY of Montana, chairman of the Senate Interior and Insular Affairs Committee, will preside over the heated debate on public power. A zealous public power advocate, this tall westerner believes in incentives, such as government stockpiling of minerals like lead and zinc, looks suspiciously on leasing of public lands for private use, favors Alaska-Hawaii statehood

GRAHAM A. BARDEN,
elder statesman of the
House, heads House Education
and Labor Committee. This
North Carolinian is sternly
opposed to weakening TaftHartley Act, champions aid to
education—within limits. He
opposes any use of federal
aid by parochial schools,
urges caution on school
construction program



UNITED

HARLEY M. KILGORE, Fair Dealer from West Virginia, will push two main lines as chairman of the Senate Judiciary Committee. One is to speed up federal justice by finding a way to squeeze out long and costly delays in the courts. Other is to extend antimonopoly probe begun in 1954 to such areas as public utilities, radio and television



UNITED PRESS

HAROLD D. COOLEY, Representative from a cottontobacco district of North Carolina, will direct fight to throw out flexible farm price supports—in effect this year—and to restore the rigid 90 per cent of parity formula. As chairman of the House Agriculture Committee, he has the support in his campaign of the ranking Republican, Clifford Hope. Mr. Cooley's bill is expected to face tough sledding



TOE WORL



EMMANUEL CELLER, Brooklyn Democrat, will lead House investigation of monopoly. As chairman of the Judiciary Committee he revived the Antimonopoly Subcommittee which died in the Eighty-third Congress. He is well remembered for conducting investigations of antitrust aspects of major league baseball. Now he wants to look into possible monopoly aspects of banking and oil. His committee has approved bill he introduced to increase penalty for antitrust violation to \$50,000



Mr. Morton (left) talks shop with Felix Knight, former Metropolitan Opera star now doing night club appearances

### **How to Entertain a Convention**

(Continued from page 39)
up a little show for the last night
of our convention. Nothing elaborate . . . . we don't want to sink a
lot of money into it."

Mr. Morton: "Well, the most economical thing, of course, is not to put on a show at all."

BUSINESSMAN: "Oh, we've got to have a little show. We've always had one. They expect it. But we can't afford anything lavish."

Mr. Morton: "Are you sure you can afford to put on a cheap show?"

Businessman: "I don't get what you mean."

Mr. Morton: "I mean that a show put on with cut-rate talent is usually worse than no show at all. You've got to remember that television has made convention audiences a lot more critical and sophisticated in their entertainment tastes than they used to be. A man who can sit in his own living room and see top-flight performers every night is not going to think much of an outfit that tries to entertain him with acts that he knows would get the gong on any well run amateur hour."

At this point, the visitor usually clears his throat apprehensively and asks how much you have to spend for a passable show. The answer:

Unless you can spend at least \$1,000 for the evening's entertainment, you'd be better off to forget about a show and settle for dance music after dinner. And for that minimum figure, don't expect anything more ambitious than a good singer and perhaps one other act.

If you want a four or five act variety show, budget from \$2,500 up for it.

If the client exhibits symptoms of shock at these figures-and many do-Mr. Morton cites the experience of one of his oldest and steadiest clients, a large national association. Before 1948, this organization was spending about \$2,000 on entertainment at its annual convention, and drawing about 800 unenthusiastic delegates. Mr. Morton persuaded its executives to invest in good shows as a drawing card. By 1951, the entertainment budget was up to \$10,000, and registrations went up to 2,300. Last year the entertainment budget topped \$40,000 and the association had to turn away more than 2,000 would-be registrants for its convention.

The moral Mr. Morton draws from this experience is that "an adequate entertainment budget is never an extravagance; it is an essential expenditure to protect the rest of your investment in a convention."

Many businessmen instinctively resist big entertainment budgets because they consciously or unconsciously resent the fat paychecks pulled down by singers, jugglers, comedians and others. The hardworking corporation executive who earns \$25,000 a year can scarcely be expected to take calmly the news that some entertainers get that much for a one-night stand.

Mr. Morton tries to offset this feeling among his clients by pointing out that entertainment talent is a commodity traded in a fiercely competitive market, and the price is governed, like the prices of peas and pork chops, by supply and demand. The supply of truly great performers is always small, and the demand, particularly since the advent of television, is enormous.

Except in rare cases where demand for a particular performer's services may reflect not his skill but that of his publicity agent, Mr. Morton is convinced that you generally get what you pay for in entertainment. If you insist on paying the \$25 a night minimum fixed by the American Guild of Variety Artists, you can reasonably expect to get a minimum of talent.

While he is against shopping for talent in the bargain basement, Mr. Morton does not feel that the average organization can or needs to stretch its budget to bring in big name stars. Most of the shows he produces are built around what the trade calls program acts which command fees ranging from \$250 to \$1,500 a performance. A program act performer is one whom you may see occasionally on the better TV variety shows, but not on his own network show. He is the veteran trouper who never quite reached star billing, or the talented newcomer who is still reaching for the golden ring of national publicity.

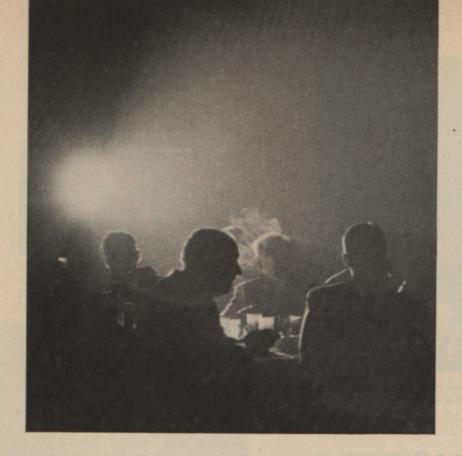
In casting a convention show, Mr. Morton's first concern is the kind of audience it will play to—all men, all women, couples or family groups.

A stag audience, he has found, is likely to drink and talk a good deal during the show, and won't be bothered with acts that require close attention. It will respond, however, to clever comedians and good looking girls.

The entirely female audience is polite and sedate. It goes for singers and dance teams, particularly if the male member of the team is young enough to hoist his partner without puffing audibly.

Mixed audiences combine the best features of both groups, toning down the men and perking up the women. Love interest can be introduced successfully with boy and girl singers doing musical comedy duets. Audience participation acts, such as mind readers, also go over well with couples.

The easiest audience of all to entertain is the one composed of family groups. You don't have to plan anything for the adults—aim at the youngsters with jugglers, acrobats, magicians and ventriloquists. If the children have a good



time, the grownups will think it was a wonderful show.

Tailoring the show to the audience is what Mr. Morton calls objective casting. He uses this term in contradistinction to subjective casting, which he regards as the cardinal sin of amateur producers.

A negative example of subjective casting, and a prevalent one, is the entertainment committee chairman who won't book any singers because he personally doesn't care for them. More sinister, in Mr. Morton's opinion, are the positive cases, in which the man in charge insists on having a particular act or type of act that appeals to him. The worst abuse of this type which he has encountered was inflicted upon a certain national association whose perennial entertainment chairman loves barbershop quartets.

Mr. Morton feels that the chairman's insistence on including at least two quartets in every show has been an important factor in reducing attendance at the association's conventions.

Another kind of entertainment chairman who rates low with Mr. Morton is the fellow who wants to put on an over-sexy show (and who sometimes thinks that one of the chairman's prerogatives is a late date with the stripper). Mr. Morton has found that in any audience—even a stag audience—there are

many who simply don't like vulgarity. And if women are present, nearly all of them will be offended, although some of them will try not to show it. Moreover, he cannot understand why any corporation or trade association would want its name associated with such a show.

In this connection, Mr. Morton advises particular care in selecting comedians. Many a comic will unload on a convention audience all of the filthy stories that the censors won't let him tell elsewhere. The comedian everybody wants is the one who is funny, clean and inexpensive. The only trouble with this chap is that he is also nonexistent. Mr. Morton's rule, born out of bitter experience, is "never economize on a comic." If you can afford \$2,000 and up for George Gobel, Herb Shriner, or Red Buttons, well and good. Otherwise, tread carefully and be sure you see the act at somebody else's show first.

He also believes in issuing strict orders to comedians that they are not to refer to the sponsor, the sponsor's product, or to any person present at or associated with the convention. This precaution was adopted after a New Orleans show at which a desperate comedian lifted the name of the company president from the convention program and used it in a very lewd story.

Although Mr. Morton was a

guest, not the producer, of that unfortunate show, he still remembers vividly the embarrassment that settled over the room as the elderly president and his white-haired wife rose from their table and walked out.

The rule was extended to performers of all types last year after an only slightly less embarrassing episode in which a pretty girl singer apologized for a slight cough by remarking brightly, "Slight case of lung cancer." The cigaret company sponsoring the show was not amused.

At the opposite extreme, but almost as offensive, Mr. Morton feels, is the master of ceremonies who keeps plugging the sponsor every few minutes in a misguided effort to ingratiate himself. Convention audiences usually know in advance who is paying for the entertainment, and they will feel far more good will toward the sponsor if you don't ram his benevolence down their throats.

Another way in which an M.C. can spoil a good show is by trying to prolong his own stay under the spotlights with witty remarks and rambling introductions. Timing is an all-important factor in a successful show. Mr. Morton urges M.C.'s to suppress their own exhibitionist tendencies in the interest of getting the next act on while the audience is still warm.

But fast-pacing by itself is not enough. It achieves the desired effect of building toward a climax only if each act is, or seems to be, a little bit better than the previous one. This would seem to be an obvious rule, but Mr. Morton is continually amazed at the number of amateur productions in which the featured performer is brought on in the middle, or even at the beginning, of the program. Sometimes this reflects the fact that the committee has tried to save money by hiring acts from local night clubs and theaters. If you book such performers, you have to take them when you can get them, between their regular shows, and they may arrive in almost any order.

The headliner who winds up the program may, of course, find himself playing to an empty house if the warm-up acts aren't good. The ideal show, Mr. Morton believes, is the one in which there is not too much disparity between the talent of the star and the supporting act. He prefers, on a \$3,000 budget, to surround a \$1,000 featured performer with four \$500 acts rather than to splurge on one \$2,500 "personality" and scrimp on supporting acts at \$100 each.

Aside from such general con-

siderations, Mr. Morton has no formula for casting a good convention show. "What an artist does is not nearly so important as how well he does it," he says. "As an extreme example, I'd rather have four good singers than three good singers and one bad dancer."

Variety, of course, is desirable if you can achieve it without sacrificing quality. The ideal four-act convention show for a mixed adult audience, provided you could find talented performers in each specialty at fees within your budget, probably would include a novelty act, a dance number, a comedy act, and a singer. For a five-act program, add a musical number of some kind, either another singer or an instrumentalist.

A variety show which runs into four or five acts is a full evening's entertainment, and should have a place on the convention program unto itself. Mr. Morton advises entertainment chairmen to resist strenuously any attempt to slip one or two after-dinner speakers onto the program ahead of the entertainment. This, he says, can be fatal to the show.

Especially if the speaker insists on reading funeral notices.

## TEN TIPS FOR ENTERTAINMENT COMMITTEE CHAIRMEN

- 1. Good talent rarely comes cheap; unless you can spend at least \$1,000, and preferably two or three times that much, forget about a show and settle for dance music.
- 2. On a limited budget, don't try to book "name" performers; shop for "program acts" that have talent but haven't had the publicity that boosts fees.
- 3. Tailor the program to the type of audience. Family groups are easiest to entertain.
- **4.** Be objective in selecting talent, and don't foist your personal whims on an audience.
- 5. Keep it clean.
- Never economize on a comedian.
- **7.** Strictly forbid all performers to mention the sponsor or his product.
- 8. Don't let the M.C. hog the spotlight; keep the pace fast.
- 9. Book several acts of comparable quality instead of splurging on a star and scrimping on supporting performers.
- 10. What an artist does is not nearly as important as how well he does it.





# FINER GRIND **SPURS** DEMAND FOR TALC

THE TALC industry has found a way to pulverize its mineral to a fineness heretofore thought impossible. This opens the door to many more uses on top of the hundreds already served by talc, one of the rock world's most useful gifts.

Up to now the finest talc grind has been a powder with a top particle size of 44 microns. That, of course, is not exactly coarse powder. It goes through a screen with 105,000 openings to the square inch.

But alongside the new grind the old size is roughly as a basketball is to a golf ball. The top size of the particles in the new grind is seven microns, with one half micron the average.

Originally, talc wasn't ground at all. Except for some breaking up and shaping, we took it pretty much as it came from nature. It all comes from the earth, occurring in veins up to 100 feet thick, often standing vertical or slanting a little.

It is a nonmetallic, metamorphic rock, meaning that across long geologic eras, under the action of heat, water, and pressure, it changed from other kinds of rock-limestone and granite, for example. It is still changing, as nothing in nature stops changing, and what kind a given talc is depends upon the state of change it is in. There are four major groups, with scores of varieties in between.

Generally, in composition, talcs keep the crystal forms and particle shapes of the rocks they come from. They occur in many shades of gray, green, red, brown; they are translucent, opaque and patterned.

Talc is found throughout the world. Europe and Asia both have their share. In this country, there are mines in Vermont, New York, Alabama, Georgia, Maryland, North Carolina, Virginia, Texas, Montana, Nevada, California and Washington. The mines in Nevada and California, unlike those elsewhere, produce nearly every kind of talc known.

It used to be called soapstone because it felt like soap. The ancient Egyptians carved amulets from it, and in pioneer times in this country, on cold winter nights, chunks of it were heated and stowed under the blankets at the foot of the bed to keep the sleeper's feet warm. Another early use was for table tops in laboratories, because it was not affected by acid.

But it wasn't until we began crushing talc into powder that it came into its own. Although it then became distinguished chiefly for its service to babies and ladies, it found other uses as well. These multiplied until today the uses of talc are nearly countless, some of them indispensable to the electronic age.

Presently, in the United States, these uses together absorb 600,000 tons a year. That's more than twice

the amount we used ten years ago.

The superfine grind is valuable to any manufacturer using the pigment titanium dioxide. Foremost among these is the paint industry which consumes about a third of the nation's talc output.

In paint, a standard function of talc has been to disperse the hiding pigments, or titanium dioxide, making for uniformity of color. Talc also gives

smoothness to the painted surface.

The new grind, which was achieved by the Sierra Talc and Clay Co., one of the top operators in a field of about 25, adds a new function. As explained by Henry Mulryan, Sierra's president, it acts on the titanium dioxide in such a way that half of the titanium dioxide can be dispensed with, while at the same time making the paint go farther. Talc is cheaper, too, costing about 80 per cent less than titanium dioxide. Nor is talc subject to periodic shortness of supply, as is titanium dioxide.



Among other titanium dioxide users who will be interested in the new talc grind is the paper industry. For paper, talc lightens the pulp, fills in the gaps between the pulp fibers, imparts mois-

ture resistance, strength and smoothness, opacity, and stability to emulsions. Titanium dioxide has been the agent giving the paper brightness. The new talc, serving the same purpose, may be used to displace up to half of it.

While the finer grind means more demand for talc, the graph line of its consumption already has been tilted sharply upward by developments in the ceramics industry. Ceramics in this context includes not only wall tile and pottery, in which talc constitutes about 70 per cent of the total mass, but insulators for the growing electronics field.

Between them these two divisions of ceramics use about the same amount of talc as the paint makers, or one third of our production. In tile and pottery, fired at comparatively low temperatures, talc increases hardness, inhibits surface cracking, controls shrinkage and permits speedier production. In short, talc means better ware faster.

Most electronic tubes must have talc insulators. The kind used for this is called steatite. This means that without steatite talc, many of the miracles of electronics would not be possible. Talc also goes into the manufacture of spark plugs.

The special merits of steatite talc insulators are that they can be formed to gnat's eye precision and, once formed, stay that way. They don't expand or contract appreciably under temperature changes. Porcelain tends to crack. Talc insulators also have a certain amount of flexibility.

We now use 5,000 tons of steatite talc a year for insulators. The bulk of it comes from only two holes in the ground, both owned by Sierra. One is at Talc City, in Inyo County, California. The second source is the Yellowstone Mine on the Madison River in Montana. There are other steatite deposits, but none known to be of the same high quality.

Use of California and Montana steatite came to the fore during World War II when it was declared critical and its use for any other purpose forbidden. Before that time, all talc insulators had been cut from block lava imported from Italy and India. The only source of block lava in the United States was a

20-by-50-foot hole in Montana.

With the foreign sources cut off by hostilities, and the budding science of electronics promising to lend an important hand in fighting the war, we needed a lot more talc insulating material than we could get from the hole in Montana. With Sierra taking the lead, the talc industry worked out a way to pulverize our own steatite and press or extrude the powder into insulators, which then were fired at high temperatures. This worked fine. With a single exception, all our electronic insulators are now made by these processes. The exception, for a tube requiring an insulator with a special porosity, is cut from the Montana block lava, which possesses the unique quality needed.

Big quantities of talc were likewise needed in war days for paint, especially to coat ships which were

daily splashing down the ways.

As we are now getting our insulation materials from our own sources, we are beginning to do the same for cosmetic powders. This has involved overcoming a prejudice against domestic materials which arose during the war. Until then, our cosmetic talcs, as with most of the block lava for insulators, had come from Italy.

When this source was lost, and the government restricted the use of steatite to paint and insulators, the girls had to get along with powder made from a

lower grade of talc.

Talc powder for cosmetics must be as white as possible, to insure uniformity in tints. It must be chemically pure, free of grit, and the particles should be flat, or, to use the trade term, "platey." This is what gives the powder slip and flow and cover-up for high shines, as in paint the same particle shape imparts flow and hiding power. In insulators round or granular particles are preferred. The flat kind, pressed together, would fluff back out of shape like

feathers. Steatite provides both kinds.

Cosmetic talc as fine as any in the world is now being produced from domestic sources. In fact, it is the only talc that meets all United States Pharmacopoeia requirements. More particularly, the girls can't tell any difference between our own and the Italian kind which they've thought they had to have. The girls at Sierra's Pasadena, Calif., office were given both kinds to try from unmarked containers. They picked the domestic kind as often as the Italian.

Our home-grown cosmetic talc also earns the USP label for medicated preparations: foot powders, heat rash powders, anti-irritant powders, etc. It is good as a filler in pills, and as coating to help send them down.

Important as cosmetic talcs are, however, they are a relatively minor item to the industry that produces them. They account for only one per cent or so of the nation's talc production, and are lumped in the miscellaneous category of talc uses. Prominent among these, and growing larger as a user, is the plastics industry.

For plastics, talc does many things, It promotes the viscosity of the compound, making it easier to handle in the press. It reduces shrinkage, contributes to an even cooling rate, makes for a smoother surface to the finished product, helps it to resist heat and

acid, and cuts the cost of manufacture.

The list of talc services is long. In textiles it serves as a filler for loosely woven cotton goods, and as waterproofing for canvas. It helps to keep cutting shears from being dulled, and needles from heating. It disperses starch to the right consistency, and lends a velvety finish to the end product.



Candy and bubble gum makers use talc to keep their products from sticking together. Box and crate makers apply it to nails to make them go in easier. The white stuff that floats to the top when

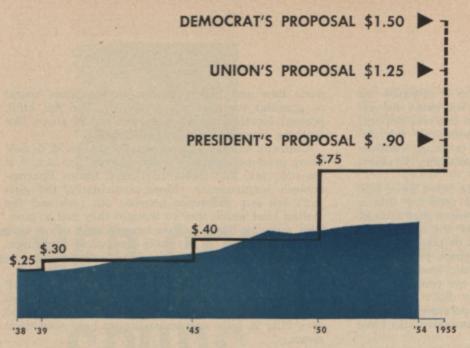
rice is washed is talc. It is added in the polishing process to give the rice grains greater sheen and smoothness.

Talc is used as a carrier for insecticides. It is used in making printer's ink, enamels, linoleum, rubber. fireproof roofing, lubricants, oil cloth, soap, dressing leather.

Surgeons use talc to correct heart disease—the ailment known as angina pectoris, in which the heart suffers from an insufficient nourishment of blood. The heart is laid bare, and into the space between it and the muscular sheath enclosing it, called the pericardium, are sifted a couple of teaspoonfuls of talc. The talc sets up an irritation which causes the pericardium to fasten onto the heart, transferring to the faltering pump the nourishing benefit of the pericardium's blood vessels.

This operation was first tried in 1939 by Drs. Samuel A. Thompson and Milton J. Raisbeck, of New York Medical College. By August, 1942, Dr. Thompson had performed the operation 19 times, 15 of them successfully.

Literally, then, as in multiple other ways, talc is a lifesaver.—Victor Boesen



While Consumer Price Index (solid color curve) rose gradually but steadily from 1938 through 1954, legal minimum wage moved in sharply defined steps, threatens to zoom to disproportionate heights. Price curve from index figures of the Bureau of Labor Statistics

# DEMOCRATS PROPOSE: MAKE MINIMUM WAGE \$1.50

By JOSEPH M. GAMBATESE

A \$1.50 MINIMUM wage for almost everybody. That's the goal of leading Democrats in Congress.

A universal minimum wage exactly double the present 75-cent per hour minimum and covering 33,000,000 workers—9,000,000 more than the 24,000,000 now covered—is the objective of the Lehman bill and others pending in both the Senate and House.

Sponsors of the measures—Senators Lehman, Green, Kilgore, McNamara, Neely, and Pastore, and Representatives Rooney and Bailey—have the support of other liberal Democrats. They do not, however, reflect the views of Senator Hill and Representative Barden, chairmen of the Senate and House Labor Committees.

The bills would amend the Fair Labor Standards Act to raise the legal minimum immediately to \$1.25 for all covered workers, and then, "as rapidly as economically feasible," to \$1.50, industry by industry.

New workers whom these proposals would bring under the law include 3,000,000 employes of more than 8,000 new car dealers, 2,200 department stores and thousands of other retail stores and service establishments doing a business of more than \$500,000 a year, or any chain with more than four stores. Latest figures show 107,400 stores in chains of four or more, 25,800 of them being grocery stores operated by 713 firms. Employes of these establishments would be covered by these bills for the minimum wage and the 40-hour week with time-and-one-half for overtime.

Many Republicans seem to go along with President Eisenhower's request for a 20 per cent increase in the minimum, to 90 cents, although some members of Congress in both parties prefer to raise the wage floor to an even \$1. The AFL and CIO say the figure should be \$1.25.

More conservative groups urge no increase at all—or at most only enough to match the 14 per cent rise in living costs since the wage floor last was raised. This would put the figure at 85 cents.

Other students of government maintain that the wage-hour law is being used for purposes not originally intended. They say it was a depression measure intended to end conditions which no longer exist.

According to this point of view, a federal wage-hour law is obsolete.

The fact is that average factory wages, more than \$1.75 today, have almost tripled since 1938, when they averaged about 60 cents. The cost of living, meanwhile, has not quite doubled.

Since the last minimum wage increase in 1950, wages have risen about 27 per cent above the \$1.38 level of that time, while living costs have gone up less than 15 per cent.

Practically all industries today, on a national basis, pay an average wage of at least 90 cents. The President's proposed amendment would assure pay raises to only a few lowpay groups within some industries and in certain regions. The bills introduced by Democratic members of Congress would have a wider effect.

To understand the possible impact on the economy of changes in the Fair Labor Standards Act it is necessary to take a broad look at the whole wages and hours situation.

The original law, passed in 1938, set a minimum wage of 25 cents an hour for wage and salary workers in firms engaged in or producing goods for interstate commerce. Automatic increases were provided to 30 cents in 1939 and to 40 cents by 1945, or sooner, for any industry in which a government-appointed committee determined that the higher minimum wage would not substantially curtail employment in the industry.

The minimum has been 75 cents since Jan. 25, 1950, when Congress raised it from 40 cents. Now, all the 24,000,000 workers who are described as "protected" by the law receive at least 75 cents an hour, and all but 1,300,000—22,700,000 of them—get at least 90 cents. Unless they are employed in certain trucking, railroad and other transportation jobs, the law also assures them time and a half for weekly overtime. Most of those who don't get premium overtime pay by law get it anyhow under union contract or voluntarily from the employer.

The President's proposal to raise

the minimum to 90 cents would force an average increase of about nine cents an hour for the 1,300,000 workers now earning between 75 and 90 cents. The approximately \$234,000,-000 annual payroll increase involved would go mostly to workers in the South.

Surveys by the Bureau of Labor Statistics over the past few years indicate that a 90 cent minimum would result in direct increases for three fourths of the 171,000 employes in southern sawmills, for more than half of the 66,000 in factories making work clothes, for about one fourth of the 8,500 in Southwest cotton textiles, and for about 15 per cent of the 7,000 footwear manufacturing employes in the Southwest.

But the wage bill would go up more than that. The President pointed out that workers earning 90 cents or more probably would receive increases from employers who would find it necessary or desirable to raise wages to preserve customary differentials in pay.

The 24,000,000 workers covered by the wage-hour law include about 15,500,000 in manufacturing, 3,500,000 in transportation, communications and utilities; 1,700,000 in wholesale trade, 1,000,000 in finance, insurance and real estate; 750,000 in mining, 740,000 in services and in related industries, 600,000 in construction, 230,000 in retail trade, and 14,000 in forestry.

There also are about 24,000,000 workers who are not now protected by the law.

If they are brought under it, the wage bill will go still higher, depending on how many of them are added, what their wages are and what minimum will be applied to them.

There is talk of a lesser minimum for newly covered workers to ease the adjustment.

The employes in this classification comprise the remainder of our civilian labor force, barring the more than 6,000,000 employes of the federal, state and local governments, and the more than 10,000,000 proprietors of businesses, self-employed doctors, dentists, lawyers and others who could not practicably be covered by any minimum wage law.

These 24,000,000 workers are divided into two groups:

9,400,000 who engage in, or produce goods for, interstate commerce and thus are covered by the law's so-called commerce clause, but whom Congress has exempted from protection for various reasons, and 14,600,000 whom the law does not reach

at all because they do not engage in, or produce goods for, interstate commerce.

The 9,400,000 "covered, but exempt" include:

3,000,000 farm workers; 3,000,000 executive, administrative and professional employes; 1,500,000 in retail stores, restaurants, hotels, dry cleaning and other trade and service establishments; 1,200,000 outside salesmen; 230,000 food processors; 117,000 seamen; 110,000 employes in small logging operations; 61,000 engaged in fishing or processing fish products; 43,000 switchboard operators in small telephone exchanges; 32,000 employes of small newspapers; 32,000 local transit employes; 10,000 employed in retailing jobs by manufacturers or wholesalers, and 4,000 taxicab operators.

The 14,600,000 employes not covered because they don't come under the commerce clause at all are divided as follows:

5,500,000 in retail trade; 3,000,000 in hotels, restaurants, dry cleaning and other service industries; 2,000,000 in domestic service; 1,800,000 in construction; 1,000,000 executive, administrative and professional employes; 410,000 in finance, insurance and real estate; 280,000 in transportation, communication and untilities; 262,000 in wholesale trade, and 200,000 in manufacturing, mining, agriculture, forestry and fisheries.

President Eisenhower did not specify which of these groups or how many workers he had in mind when he asked Congress to extend the law to "a substantial number" of workers. Secretary of Labor Mitchell would only say "millions" more, and gave assurances that the Administration has no desire to apply the law to farm workers or to employes in "purely local" enterprises.

Local retailing and service industries have reason to believe that they, with 10,000,000 employes exempt or not covered by the law, are the main target for expansion.

Secretary Mitchell, himself a former vice president of Blooming-dale Bros., New York department store, told the American Retail Federation a year ago: "At the risk of being called a heretic, I will state my belief . . . . that workers in retailing and service establishments should have minimum wage protection.

"Retailing can stand a fair minimum wage," he said, "because so large a part of the industry already pays more than a fair minimum."

The Secretary of Labor feels strongly that it doesn't do much good to raise the minimum wage if the working groups who need the





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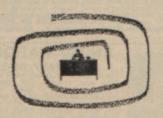
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### ever wonder whobesides vourselfreads Nation's Business

Surveys show . . . 69% of the executives of the fifteen largest railroads; half the bosses of those manufacturers with \$1 billion or more of assets; 34% of top management in the country's eighty-odd leading national retailers. Plenty on the other side of the fence though . . . fact is, half Nation's Business subscribers are located in towns with less than 25,000 population. Big, middle-size and little businessmen all find a community of interest in these pages.



protection most are not subject to the law. He has criticized the 1950 amendments which, although raising the minimum, exempted more workers so that fewer benefit from the

President Eisenhower suggested that there be "a gradual approach to this problem" of expanded coverage. This substantiated fears of the retailing and service industries that minimum wages lower than 90 cents. and perhaps varying by regions of the country, would be offered to them as "bait" to reduce their re-sistance to bringing their employes under the law. There is precedence for this in minimum wages below 75 cents now in effect in Puerto Rico.

But operators of retail and service establishments, which remain open for long hours, are concerned as much, if not more, about the overtime pay requirements of the law. They warn that higher consumer prices, loss of jobs, and business failures could result from higher labor costs.

The wage-hour law specifies that any substandard conditions must be corrected "without substantially curtailing employment or earning power." On this point, the Labor Department recently surveyed the effects of the 1950 increase from 40 to 75 cents on five low-wage manufacturing industries—southern sawmilling, fertilizer production, men's dress shirts and nightwear, men's seamless hosiery, and wood furniture. At the same time it examined the effects on wages in 17 high- and low-wage industries.

The fact that the Korean mobilization came along five months after the 75 cent minimum went into effect made it difficult to isolate effects of the higher minimum from the inflationary pressures of mobilization. The same sort of thing happened when the law was first passed. World War II started in Europe and war mobilization got rolling in this country less than a year after the 25 cent minimum took effect and before the minimum went up to 30 cents. So there really has not been a normal period following a minimum wage increase to serve as a good measure

of its impact.

Nevertheless, the Labor Department found that the 1950 increase had only "minor determinable effects" on employment, plant shutdowns, prices, technological change, hiring policies, and overtime work. It also found that 1,300,000 workers then earning less than 75 cents got increases-the same number the Administration now estimates would get increases under a 90-cent minimum

Basically, the retailing and serv-

ice industries feel it would be impossible to set a countrywide standard which would fit the many varieties of local businesses, and that if their employes' wages and hours need regulating, it can be done better locally where local conditions can be considered.

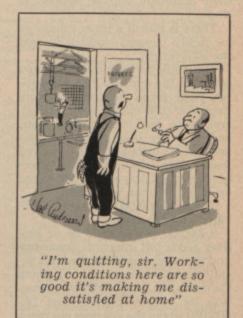
Nineteen states and the District of Columbia have minimum wage laws which have been newly established or revised since the end of World War II.

They regulate the wages of more than 3,500,000 workers who do not have protection of the federal law. More than 1,500,000 of them are in retail trade.

Figures obtained from the U.S. Labor Department's Wage-Hour Division indicate that the more than 3,500,000 workers who have state, but no federal, minimum wage protection are distributed as follows:

New York, 1,062,000; California, 616,200; Massachusetts, 601,000; Connecticut, 245,000; Wisconsin, 205,000; Washington, 99,700; New Jersey, 98,300; Ohio, 91,800; Kentucky, 87,200; Minnesota, 72,200; Oregon, 64,900; New Hampshire, 61,900; Colorado, 50,500; Pennsylvania, 48,900; Rhode Island, 35,700; Utah, 20,700; Arizona, 16,800; North Dakota, 13,300, and Nevada, 12,400. The District of Columbia: 56,800.

All but five of the state laws cover only women and minors, but indirectly this protects the men, too. Three states-Connecticut, Massachusetts and New Hampshire-protect men workers directly. Laws of two others, New York and Rhode Island, refer to women, but also provide that men can't be paid less than the minimum for women.





## notebook

### World calendar coming?

BUSINESSMEN will want to follow the proposal for a new World Calendar which the United Nations Economic and Social Council will consider when it meets in Geneva in May.

If the new calendar is adopted—similar plans have been discussed, then discarded, in the past—we will have the same 12 months in the same familiar order. However, January will always start on Sunday, as will April, July and October. These four months will have 31 days. The other eight months will have 30 days each, making a total of 364 days.

The required 365th day will be a special day between Dec. 30 and Jan. 1, without a weekday name. In Leap Years, every four years as at present, there will be an extra day between June 30 and July 1.

Since the pattern of any particular month will not change from year to year, it will be easy to compile accurate statistics of trade and commerce. Holidays will always occur on the same day of the week. All four quarters will have an identical pattern. Every month will have 26 shopping days, except for legal holidays.

If the UN's Economic and Social Council finds most nations in sympathy with the plan it will refer it to the General Assembly, which next meets in the fall. If approved there, an international convention similar to those agreements defining weights and measures, postal regulations or radio wave length allocations, will be drawn up and submitted to all governments for ratification.

### **Electronic loafing exposed**

AUTOMATIC machines were enjoying an unusually good press until John Vavasour, a General Electric auditor, came along.

Mr. Vavasour had a hunch that automatic machines—like humans—have a way of looking busy when they're not. To test his theory he borrowed a laboratory recording instrument and tied it into the power

lines feeding various tabulating machines. Sure enough. The graphs from the recorder showed that machines which seemed to be busy all the time were actually idle for long periods.

According to GE, this machineage "goldbricking" was most apparent during operations involving several different kinds of machines performing different tasks. Some did their work quickly, then "rested" while waiting for others to catch up.

Until this experiment, records based upon the best possible human observation showed 100 per cent machine utilization and the need for more machines. Now operators no longer have to keep an eye on what the GE News Bureau calls "sly mechanical culprits." Scientific rescheduling of work has made it possible to boost output without new machines.

### Facts for the farm

THE "Farmer's Handbook and Almanac," published annually by The B. F. Goodrich Company of Akron, O., gives that firm an opportunity to do a selling job while performing a free service for rural residents.

Approximately 1,000,000 copies of the Goodrich almanac are mailed to Goodrich-owned stores and franchise dealers each year. They are distributed without charge to Goodrich customers and to anyone who requests a copy.

The '55 edition is the seventeenth. It includes 64 pages of information of value to farmers—livestock gestation tables, tips on how to buy farm machinery, farm safety hints, a list of common commodity weights.

The almanac is liberally, but not excessively, sprinkled with advertisements for a number of Goodrich products—the sell content. A company spokesman says the booklets have a real merchandising value, judging from their popularity with Goodrich retailers.

### How to say what ails you

AMERICANS seem anxious these days to learn as much about medi-

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### CHANGE OF ADDRESS . .

SEND your new address at least 30 days before the date of the issue with which it is to take effect. Tear address label off magazine and send it with your new address. The Post Office will not forward copies unless you provide extra postage. Duplicate copies cannot be sent.

NATION'S BUSINESS 1615 H Street, N. W. Washington 6, D. C. **BLUSTERY:** Plenty people are, too. You run into them every day — at the office, PTA meetings — on the golf course, in barber shops or local hardware stores . . . sometimes, even across your backyard fence. Downtown quarterbacks — always yakking about what's wrong with the community, the better government that's needed, the civic projects that oughta be started . . . all the big things they'd do if only the Mayor would swap places. Sure, fel-



lows at the Chamber of Commerce talk it up, too. Only difference is, they get out and do something about it. Somebody starts a safety campaign. Another pushes a new parking field, better traffic conditions. How about a shopping center for that new development? Let's get out the vote on Election Day! The word goes out, the ball starts rolling, and the job gets done with a real gale-force effort that bowls over every obstacle.

# Pete Progress

Pete Progress speaks for your Chamber of Commerce, an organization dedicated to making your community a safer, healthier, pleasanter place to live and work. Support it! cine as they can. To help them understand this kind of information when they get it, Frederick Ungar Publishing Company is offering an "Intelligent Layman's Medical Dictionary."

The dictionary was written by Harry Swartz, M.D. On its 306 pages are easy-to-understand definitions of such formidable terms as "panopthalmitis," (inflamed eyeball), "sphygmomanometer" (a blood-pressure machine) and "ischium" (the bone on which the body rests in sitting).

Also included are a table of vitamins, and their dietary sources, a graph listing desirable weights for men and women (by height and frame), drawings of human organs.

Dr. Swartz's publishers are making a special play for businessmen, in the belief that their dictionary will be useful as a reference work in the office and as an aid to fuller understanding of the sometimes baffling language of physicians.

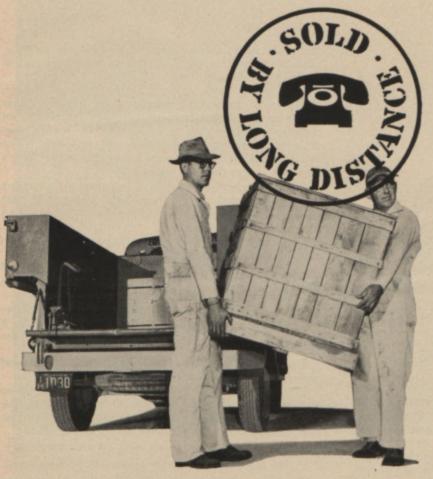
### New twists

HOUSTON: A moving rubber sidewalk capable of handling 15,000 people an hour and featuring the widest conveyor belt ever used commercially to transport people now is operating in City Coliseum. Sidewalk is 82 inches wide, carries pedestrians across a bridge which links parking area with Coliseum's exposition hall and auditorium. Belt travels 132 feet a minute.

NEW YORK: Postwar boom in vending machines extends to transportation business. New York Central suburban passengers can now make push-button purchases of single-trip tickets from a self-service vending machine in Grand Central Terminal. New machine, called "Automaticket," was developed by General Register Corporation, makes it possible for commuter to get ticket four seconds after coins are dropped in slot.

LOS ANGELES: Interior decorator Adele Faulkner announces a unique by-the-hour and by-mail interior design service. Purpose, she says, is to put professional decorating advice within budget reach of the nation's non-mansion dwellers. Clients mail in their needs and preferences, describing rooms, furniture. From this resume Miss Faulkner analyzes their problems, then mails back floor plan detailing furniture placement, coordinated color plan for all interior paints, swatches of materials for draperies and upholstery, other tips and suggestions.

# Inviting customers to call collect brings parts sales of \$4000 first month



Equipment Supply Co. delivers parts ordered by Long Distance.

The company serves West Texas, Southern New Mexico and Northern Mexico.

A case history of Equipment Supply Co., Inc. El Paso, Texas

To give customers quick, dependable parts delivery and service, the Equipment Supply Co. invites its United States customers to call collect by Long Distance.

In the first month of the Call Collect Plan, sales of \$4000 in parts were attributed to calls costing only \$60. And the plan is doing more than building parts sales.

"We know that new tractor sales have increased due to this promise of good service," the company reports. "We have gained many new customers as well as improved relations with our old customers."

You can start a similar plan today. The only equipment you need is the telephone on your desk. And there are many other ways you can make Long Distance increase sales. If you would like a telephone company representative to stop in and explain them, call your Bell Telephone Business Office.

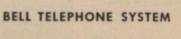
### LONG DISTANCE

Here are some examples:

Wilmington to Lancaster, Pa. 40¢
Cleveland to Pittsburgh . . 60¢
Des Moines to Rock Island . 70¢
Cincinnati to Evansville, Ind. 75¢
El Paso to Albuquerque . . 85¢

These are the daytime Station-to-Station rates for the first three minutes. They do not include the 10% federal excise tax.

Call by Number. It's Twice as Fast





# REUTHER STREAMLINES AN OLD SPOOK



"AUTOMATION" is rapidly gaining place among the most fearsome words in the language. Already only "atom bomb," "war" and names of the grimmer diseases outrank it. Those who see its more horrid aspects ask us to believe that this new term is a synonym for such economic chaos as the world has never seen in peacetime-unless a whole arsenal of social measures is mobilized to counteract its dangers.

Such panic is startling.

Actually automation would seem to be a pleasant word. It is used rather loosely to identify a variety of machines and controls which have the purpose of freeing man from some montonous forms of labor. In a recent newspaper article Walter Reuther described a visit to such a machine:

"I watched it machine the motor block for a Ford engine in less than 15 minutes-work that under older techniques would have taken many workers

many hours.'

The machine bores cylinders, then electronically measures its work and rejects that which for some reason is wrong.

A Ford engineer remarked, "Not one of those machines pays dues to the United Automobile Workers.'

Mr. Reuther replied, "Not one of them buys new Ford cars, either.'

That reply aptly sums up the case against automa-

tion: Machines replace men. Men, having no jobs, cease to be customers. This throws other men out of work in a widening downward spiral.

This is the same argument that inspired French workmen to throw their wooden shoes into the crude machines of the first Industrial Revolution. It has on occasion delayed the introduction of textile machinery, automatic typesetting and railroads. The fact that the argument is used today proves that man's fears are longer than his memories.

Only 20 years ago the world sat through a similar tempest whipped up by those who maintained that the day's economic ills resulted because machines had thrown men out of work.

The bogy word then was "technocracy." Harsh

things were said against it:

The Bishop of Ripon (England): "The enemy of progress now is not so much the beast within man as the machine that has him in its grip."

The Rev. H. P. Frost: "In this age of the machine, the shadow of a Frankenstein monster falls like a sinister menace across the upward pathway of the

Prof. Harry E. Barnes: "The machine has confused and will finally destroy its baffled creator."

Somebody even urged a moratorium on patents so that no more new machines might be created to displace more workers—a suggestion firmly based on the two false premises that inspire fear of the machine:

- 1. The demand for goods will become stationary.
- 2. No new scientific fields remain to be conquered.

Freezing patents in the '30's probably would have held air transportation about where it was with 21,000 employed. Today it has 905,222 workers, without counting airport employes, crop dusting firms and some other small segments of the industry which the Census Bureau has not tabulated.

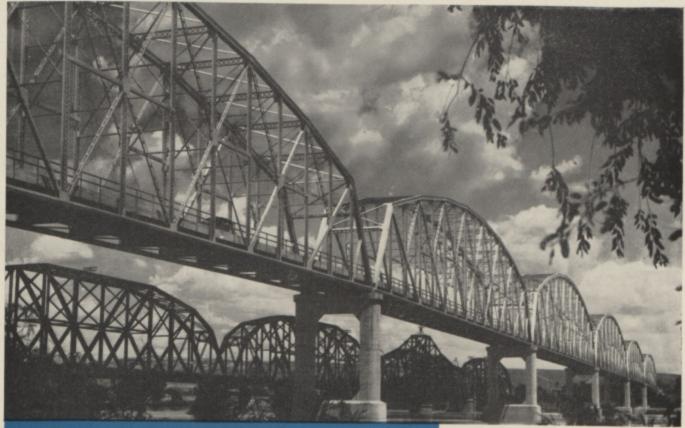
It would also have denied today's workers jobs in television, radar, atomic energy and vast areas of the

plastics and other industries.

Since nobody did anything hasty, the 45,500,000 jobs that the machine's foes were trying to save in 1930 had grown to an average of 63,500,000 last year; goods and services produced had increased from \$164,-000,000,000 (at 1954 prices) in 1930 to \$357,000,000,-000 last year. Meanwhile population, 122,775,000 in 1930, has now reached more than 164,000,000.

Obviously the man with a job has little to fear from the machine.

He does need to fear those who urge social and economic policies which would delay the introduction of machines or make it more difficult.



This bridge has never been repainted or retouched since aluminum paint was applied in 1931

Missouri River Bridge, Pierre, South Dakota. Painted with aluminum in 1931, this bridge is still bright, attractive and well-protected against corrosion. It has not been repainted or retouched in 24 years.

# Let us show you how aluminum paint can save you money in repainting costs, too

If you ever had any doubt about aluminum paint's longevity, this ought to cure it. In a most extraordinary testimonial, Mr. K. R. Scurr, Bridge Engineer, South Dakota State Highway Commission, reports:

"Aluminum paint has been used exclusively as a field coat for highway bridges in South Dakota since 1931. Up to the present date (July, 1954) no bridge has been repainted, either wholly or partially, which was originally painted with aluminum paint.

"Five large Missouri River bridges were originally built in 1925, and painted with sublimed blue lead. By 1931 these structures were badly in need of repainting, which indicates that the conditions to which the paint was subjected were not unusually favorable. During the years 1931-1932, all five were repainted with two coats of aluminum paint and to this date, the three structures which remain in place do not need repainting and continue to present a very bright and clean appearance."

If you are plagued by the high costs of periodic repainting, this aluminum paint story should start you thinking . . . and saving. ALCOA does not make paint. But as the major supplier of aluminum pigment to the paint industry, we want aluminum paint users to get the kind of service they should from the paint they buy.

We'd like to work with your bridge engineers and public maintenance people on their paint problems. Write us the details today. You will also want our FREE LITERATURE.



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THE TREASURE that the scientist seeks is better understanding of nature, and ways to bring better living for all of us. To find them, he is constantly probing, taking the elements apart, putting them back together in different ways—always looking for something new and promising.

How important is such research? Today, more than one-third of the work of the people of Union Carbide is in providing products and processes that did not exist in commercial quantities 15 years ago. Each new product, each new process, was born of intensive search.

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